



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 147623**

**TO: Marina Lamm**  
**Location: 4a40 / 4c70**  
**Wednesday, March 16, 2005**  
**Art Unit: 1616**  
**Phone: 571-272-0618**  
**Serial Number: 10 / 791354**

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**Location: Biotech-Chem Library**  
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### **Search Notes**

=> fil reg

FILE 'REGISTRY' ENTERED AT 13:30:15 ON 16 MAR 2005

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 15 MAR 2005 HIGHEST RN 845699-17-4

DICTIONARY FILE UPDATES: 15 MAR 2005 HIGHEST RN 845699-17-4

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d ide can l42 tot

L42 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2005 ACS on STN

RN 37406-24-9 REGISTRY

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]-, tetrasodium salt (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN L-Aspartic acid, N-(1,2-dicarboxyethyl)-, tetrasodium salt

OTHER NAMES:

CN Iminodisuccinic acid tetrasodium salt

CN Tetrasodium iminodisuccinate

FS STEREOSEARCH

DR 176499-41-5

MF C8 H11 N O8 . 4 Na

LC STN Files: CA, CAPLUS, CASREACT, CIN, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPAT2, USPATFULL

DT.CA Caplus document type: Conference; Journal; Patent

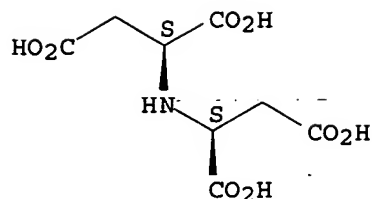
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties); USES (Uses)

CRN (7408-20-0)

Absolute stereochemistry.



● 4 Na

44 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 44 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 142:62258  
 REFERENCE 2: 140:359337  
 REFERENCE 3: 139:232041  
 REFERENCE 4: 139:216000  
 REFERENCE 5: 139:182031  
 REFERENCE 6: 139:175207  
 REFERENCE 7: 139:70748  
 REFERENCE 8: 138:355519  
 REFERENCE 9: 138:243246  
 REFERENCE 10: 138:239736

L42 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2005 ACS on STN

RN 7408-20-0 REGISTRY

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN L-Aspartic acid, N-(1,2-dicarboxyethyl)-, (S)-

CN Succinic acid, 2,2'-iminodi- (7CI, 8CI)

OTHER NAMES:

CN Iminodisuccinic acid

CN N-(1,2-Dicarboxyethyl)aspartic acid

FS STEREOSEARCH

DR 159874-97-2

MF C8 H11 N O8

CI COM

LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CIN, DETHERM\*, GMELIN\*, MRCK\*,  
 PIRA, TOXCENTER, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)

DT.CA Caplus document type: Conference; Journal; Patent; Report

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PROC  
 (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses);  
 NORL (No role in record)

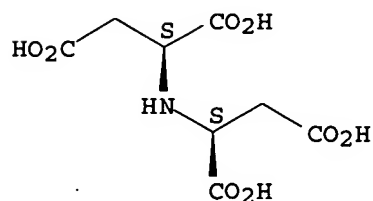
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological  
 study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: OCCU (Occurrence); PREP (Preparation); PROC  
 (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological

study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

156 REFERENCES IN FILE CA (1907 TO DATE)  
 48 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 156 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 142:37623  
 REFERENCE 2: 141:319490  
 REFERENCE 3: 141:319489  
 REFERENCE 4: 141:282420  
 REFERENCE 5: 141:282415  
 REFERENCE 6: 141:282414  
 REFERENCE 7: 141:175609  
 REFERENCE 8: 141:142257  
 REFERENCE 9: 141:141763  
 REFERENCE 10: 140:130158

=> d his

(FILE 'HOME' ENTERED AT 13:09:58 ON 16 MAR 2005)  
 DEL HIS

FILE 'REGISTRY' ENTERED AT 13:10:43 ON 16 MAR 2005

L1 1 S 7408-20-0  
 L2 5 S C8H11NO8/MF AND ASPARTIC ACID AND DICARBOXYETHYL  
 L3 5 S L1,L2  
 SEL RN  
 L4 35 S E1-E5/CRN

FILE 'HCAPLUS' ENTERED AT 13:11:39 ON 16 MAR 2005

L5 204 S L1 OR L4  
 L6 14 S (NA4 OR TETRASODIUM OR TETRA SODIUM) () (IMINODISUCCINATE OR IM  
 L7 7 S DICARBOXYETHYL (2W) ASPARTIC ACID  
 L8 178 S (IMINODISUCCINIC OR IMINO()) (DISUCCINIC OR DI SUCCINIC) OR IMI  
 L9 235 S L5-L8



L10 183 S L9 AND (PD<=20010901 OR PRD<=20010901 OR AD<=20010901)  
L11 26 S L10 AND (COSMETIC? OR PHARMACEUT? OR PHARMACOL?)/SC,SX,CW,BI  
E COSMETICS/CT  
L12 15 S L10 AND E3-E61  
E E3+ALL  
L13 15 S L10 AND E3+OLD,NT,PFT,RT  
E E30+ALL  
L14 11 S L10 AND E3+NT  
E E16+ALL  
L15 0 S L10 AND E3  
E E7+ALL  
L16 0 S L10 AND E3,E4  
E E7+ALL  
L17 0 S L10 AND E2+NT  
L18 0 S L10 AND E9+NT  
E SKIN/CT  
L19 10 S L10 AND E3-E97  
E E3+ALL  
L20 15 S L10 AND E6+OLD,NT,PFT,RT  
E E36+ALL  
L21 10 S L10 AND E5+OLD,NT,PFT,RT  
L22 26 S L11-L21  
L23 4 S L22 AND (STABIL? OR INSTABIL? OR STABL? OR UNSTABL?)  
E STABILITY/CT  
E E3+ALL  
L24 2 S L10 AND E2+NT  
L25 11 S L10 AND E2+PFT,RT  
E E39+ALL  
L26 6 S L10 AND E2+NT  
E E22+ALL  
E E38+ALL  
L27 0 S L10 AND E2  
L28 4 S L24-L26 AND L22  
L29 4 S L23,L28  
L30 31 S L22-L28 NOT L29  
L31 9 S L30 NOT L22  
L32 3 S (L1 OR L4) (L)USES+NT/RL AND L31  
L33 2 S (L1 OR L4) (L)USES+NT/RL AND L29  
L34 24 S (L1 OR L4) (L)USES+NT/RL AND L30  
L35 28 S L29,L32,L33,L34  
L36 7 S L30-L34 NOT L35  
L37 11 S L10 AND (KROPKE R? OR KROEPKE R? OR NIELSEN J? OR GOPPEL A? O  
L38 14 S L10 AND BEIERSDOR?/PA,CS  
L39 14 S L37,L38  
L40 14 S L39 AND L35,L36  
L41 28 S L35,L40  
SEL HIT RN

FILE 'REGISTRY' ENTERED AT 13:29:51 ON 16 MAR 2005

L42 2 S E1-E2

FILE 'REGISTRY' ENTERED AT 13:30:15 ON 16 MAR 2005

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 13:30:27 ON 16 MAR 2005

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FILE COVERS 1907 - 16 Mar 2005 VOL 142 ISS 12  
 FILE LAST UPDATED: 15 Mar 2005 (20050315/ED)

This file contains CAS Registry Numbers for easy and accurate  
 substance identification.

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L41 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2003:238126 HCAPLUS  
 DN 138:243246  
 ED Entered STN: 27 Mar 2003  
 TI Increase of **stability** of lecithin-and chitosan-containing  
**cosmetic** formulations by addition of **iminodisuccinic**  
**acid**  
 IN Kroepke, Rainer; Knueppel, Anja; Nielsen, Jens;  
 Lindemann, Wiebke  
 PA Beiersdorf AG, Germany  
 SO Ger. Offen., 8 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC ICM A61K007-00  
 ICS A61K007-48  
 CC 63-4 (Pharmaceuticals)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10142932	A1	20030327	DE 2001-10142932	20010901 <--
PRAI	DE 2001-10142932		20010901	<--	

#### CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10142932	ICM	A61K007-00
	ICS	A61K007-48
DE 10142932	ECLA	A61K008/44; A61Q019/09; A61K008/55C; A61K008/73P; A61K031/195; A61K031/195+M; A61K031/685; A61K031/685+; A61K031/722; A61K031/722+M; A61Q019/00 <--

AB The invention concerns the use of **iminodisuccinic acid**  
 or its salts in lecithin-and chitosan-containing skin formulations for  
 increasing the **stability** of the products. After-sun and acne  
 treating preps. are formulated with **iminodisuccinic**  
**acid** or its tetrasodium salt. Thus an O/W emulsion contained  
 (weight/weight%): chitosan 1.0; lecithin 1.0; paraffin oil 2.5; vaseline 8.0;  
**iminodisuccinic acid** tetrasodium salt 0.05; decyloleate  
 0.5; octyldodecanol 0.5; dicaprylyl carbonate 0.1; glycerin 3.0; lactic  
 acid 0.6; perfume q.s.; ethanol 2.0; caprylic/capric triglyceride 2.0;  
 methylparaben 0.4; propylparaben 0.3; water to 100.

ST iminodisuccinate lecithin chitosan skin **cosmetics**  
**stability**

IT **Cosmetics**  
 (emulsions; increase of **stability** of lecithin-and  
 chitosan-containing **cosmetic** formulations by addition of  
**iminodisuccinic acid**)

IT **Acne**

**Cosmetics**  
**Skin**  
**Stability**  
**Sunscreens**

(increase of **stability** of lecithin-and chitosan-containing cosmetic formulations by addition of **iminodisuccinic acid**)

**IT Lecithins**

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (increase of **stability** of lecithin-and chitosan-containing cosmetic formulations by addition of **iminodisuccinic acid**)

**IT Emulsions**

(oil-in-water; increase of **stability** of lecithin-and chitosan-containing cosmetic formulations by addition of **iminodisuccinic acid**)

**IT 7408-20-0, Iminodisuccinic acid 9012-76-4, Chitosan 37406-24-9, Iminodisuccinic acid tetrasodium salt**

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(increase of **stability** of lecithin-and chitosan-containing cosmetic formulations by addition of **iminodisuccinic acid**)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE

- (1) Anon; DE 19528059 A1 HCAPLUS
- (2) Anon; DE 19822600 A1 HCAPLUS
- (3) Anon; DE 19923838 A1 HCAPLUS
- (4) Anon; DE 19928495 A1 HCAPLUS
- (5) Anon; WO 9845251 A1 HCAPLUS

**IT 7408-20-0, Iminodisuccinic acid 37406-24-9, Iminodisuccinic acid tetrasodium salt**

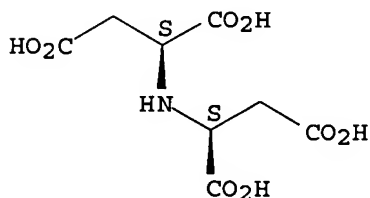
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(increase of **stability** of lecithin-and chitosan-containing cosmetic formulations by addition of **iminodisuccinic acid**)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

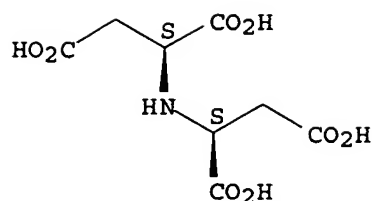
Absolute stereochemistry.



RN 37406-24-9 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 4 Na

L41 ANSWER 2 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2003:202444 HCAPLUS  
 DN 138:209977  
 ED Entered STN: 14 Mar 2003  
 TI Enhancing the skin-moisturizing properties of polyol-containing  
 cosmetics by the use of iminodisuccinic acid  
 IN Kroepke, Rainer; Nielsen, Jens; Goepfel, Anja  
 ; Kranz, Ariane; Doerschner, Albrecht  
 PA Beiersdorf A.-G., Germany  
 SO PCT Int. Appl., 11 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 IC ICM A61K007-48  
 ICS A61P017-00; A61K031-19  
 CC 62-4 (Essential Oils and Cosmetics)  
 FAN.CNT 1

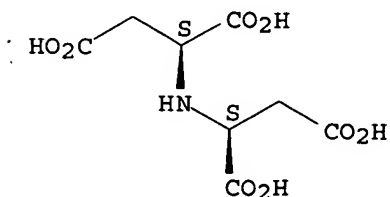
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003020239	A2	20030313	WO 2002-EP9577	20020828 <--
	WO 2003020239	A3	20030925		
	W: JP, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
	DE 10142931	A1	20030327	DE 2001-10142931	20010901 <--
	EP 1427388	A2	20040616	EP 2002-774536	20020828 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
	JP 2005502673	T2	20050127	JP 2003-524548	20020828 <--
	US 2004247631	A1	20041209	US 2004-790910	20040301 <--
PRAI	DE 2001-10142931	A	20010901	<--	
	WO 2002-EP9577	W	20020828		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003020239	ICM	A61K007-48
	ICS	A61P017-00; A61K031-19
DE 10142931	ECLA	A61K008/34D; A61K008/44; A61Q017/04; A61Q019/00 <--
JP 2005502673	FTERM	4C083/AB342; 4C083/AB362; 4C083/AC012; 4C083/AC072; 4C083/AC102; 4C083/AC111; 4C083/AC121; 4C083/AC122; 4C083/AC131; 4C083/AC242; 4C083/AC292; 4C083/AC352; 4C083/AC402; 4C083/AC422; 4C083/AC432; 4C083/AC442; 4C083/AC482; 4C083/AC531; 4C083/AC532; 4C083/AC642; 4C083/AC682; 4C083/AD152; 4C083/AD162; 4C083/AD172; 4C083/AD202; 4C083/AD242; 4C083/AD392; 4C083/AD512; 4C083/CC04; 4C083/CC05; 4C083/CC19; 4C083/DD23; 4C083/DD27; 4C083/DD32; 4C083/EE12 <--
US 2004247631	ECLA	A61K008/34D; A61K008/44; A61Q017/04; A61Q019/00 <--

- AB The invention concerns **cosmetic** and dermatol. prepn. that contain polyols as moisturizers and **iminodisuccinic acid** and/or its salts in order to prolong the moisturizing effect of the polyols. **Tetrasodium iminodisuccinate** is the preferred component; it is included in skin care products, facial compns. and sunscreens. Thus a W/O emulsion contained (weight/weight%): triglycerin diisostearate 0.5; diglycerin dipolyhydroxy stearate 1.5; paraffin oil 10.0; vaseline 6.0; hydrogenated cocoglycerides 1.0; decyl oleate 0.75; octyldodecanol 1.0; aluminum stearate 0.3; dicaprylyl carbonate 0.05; hydrogenated castor oil 0.75; magnesium sulfate 0.6; glycerin 5.0; tetrasodium imino succinate 0.6; perfume q.s.; caprylic/capric triglyceride 2.5; methylparaben 0.15; propylparaben 0.4; water to 100.
- ST skin moisturizer polyol iminodisuccinate
- IT **Cosmetics**  
(emulsions; enhancing the skin-moisturizing properties of polyol-containing **cosmetics** by the use of **iminodisuccinic acid**)
- IT **Cosmetics**  
**Sunscreens**  
(enhancing the skin-moisturizing properties of polyol-containing **cosmetics** by the use of **iminodisuccinic acid**)
- IT **Cosmetics**  
(moisturizers; enhancing the skin-moisturizing properties of polyol-containing **cosmetics** by the use of **iminodisuccinic acid**)
- IT Alcohols, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(polyhydric; enhancing the skin-moisturizing properties of polyol-containing **cosmetics** by the use of **iminodisuccinic acid**)
- IT 50-70-4, Sorbit, biological studies 56-81-5, Glycerin, biological studies 7408-20-0, **Iminodisuccinic acid**  
25265-75-2, Butylene glycol 37406-24-9, L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]-, tetrasodium salt  
RL: COS (Cosmetic use); BIOL (Biological study); **USES**  
(Uses)  
(enhancing the skin-moisturizing properties of polyol-containing **cosmetics** by the use of **iminodisuccinic acid**)
- IT 7408-20-0, **Iminodisuccinic acid**  
37406-24-9, L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]-, tetrasodium salt  
RL: COS (Cosmetic use); BIOL (Biological study); **USES**  
(Uses)  
(enhancing the skin-moisturizing properties of polyol-containing **cosmetics** by the use of **iminodisuccinic acid**)
- RN 7408-20-0 HCAPLUS
- CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

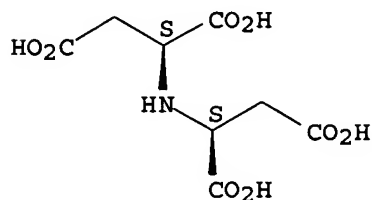
Absolute stereochemistry.



RN 37406-24-9 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 4 Na

L41 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2003:202443 HCAPLUS  
 DN 138:209976  
 ED Entered STN: 14 Mar 2003  
 TI Increase in the light **stability** of **cosmetic**  
 preparations by the addition of **iminodisuccinic acid**  
 IN Kroepke, Rainer; Nielsen, Jens; Goepfel, Anja  
 PA Beiersdorf A.-G., Germany  
 SO PCT Int. Appl., 12 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 IC ICM A61K007-48  
 CC 62-4 (Essential Oils and **Cosmetics**)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003020238	A1	20030313	WO 2002-EP9576	20020828 <--
	W: JP, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
	DE 10142927	A1	20030320	DE 2001-10142927	20010901 <--
	EP 1427389	A1	20040616	EP 2002-797633	20020828 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	JP 2005504780	T2	20050217	JP 2003-524547	20020828 <--
	US 2004228893	A1	20041118	US 2004-791354	20040301 <--
PRAI	DE 2001-10142927	A	20010901	<--	
	WO 2002-EP9576	W	20020828		

#### CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003020238	ICM	A61K007-48
DE 10142927	ECLA	A61K008/44; A61Q017/04; A61Q019/00
JP 2005504780	FTERM	4C083/AA122; 4C083/AA162; 4C083/AB172; 4C083/AB432; 4C083/AC012; 4C083/AC072; 4C083/AC102; 4C083/AC122; 4C083/AC172; 4C083/AC182; 4C083/AC242; 4C083/AC332; 4C083/AC342; 4C083/AC352; 4C083/AC392; 4C083/AC422; 4C083/AC442; 4C083/AC482; 4C083/AC492; 4C083/AC512; 4C083/AC641; 4C083/AC642; 4C083/AC682; 4C083/AC792; 4C083/AC852; 4C083/AD022; 4C083/AD072; 4C083/AD092; 4C083/AD152; 4C083/AD202; 4C083/AD242; 4C083/AD352; 4C083/AD392; 4C083/AD622; 4C083/AD642; 4C083/AD662; 4C083/BB21; 4C083/BB41; 4C083/BB45; 4C083/CC01;

4C083/CC02; 4C083/CC04; 4C083/CC05; 4C083/CC06;  
4C083/CC19; 4C083/DD22; 4C083/DD23; 4C083/DD27;  
4C083/DD30; 4C083/DD31; 4C083/DD38; 4C083/DD47;  
4C083/EE01; 4C083/EE12; 4C083/EE13; 4C083/EE17

&lt;--

&lt;--

US 2004228893 ECLA A61K008/44; A61Q017/04; A61Q019/00

AB The invention relates to the use of **iminodisuccinic acid** and/or the salts of the same for increasing the color **stability** and the light **stability** of **cosmetic** and dermatol. preps., esp. when stored in transparent packaging materials. Thus a composition contained (weight/weight%): glyceryl stearate citrate 2; myristyl myristate 1; stearyl alc. 2; cetyl alc. 1; hydrogenated coco fatty acids 2; butylene glycol dicaprylate/dicaprate 1; ethylhexyl coco fatty acid ester 3; vaseline 4; dicapryl ether 1; ethylhexylmethoxy cinnamate 3; bis-ethylhexyloxyphenol methoxyphenyl triazine 1; Ubiquinone Q10 0.05; **tetrasodium iminodisuccinate** 0.1; phenoxyethanol 0.3; p-hydroxybenzoic acid alkyl ester 0.5; diazolidinyl urea 0.25; iodopropynylbutylcarbamate 0.1; ethanol 1; Xanthan gum 0.1; polyacrylic acid 0.2; glycerin 8; dyes (water and oil soluble) 0.05; perfume q.s.; water to 100.

ST iminodisuccinate **stability cosmetic** sunscreens

IT **Stability**

(color; increase in light **stability** of **cosmetic** preps. by the addition of **iminodisuccinic acid**)

IT **Cosmetics**

**Skin**

**Stabilizing agents**

**Sunscreens**

Transparency

(increase in light **stability** of **cosmetic** preps. by the addition of **iminodisuccinic acid**)

IT **Stability**

(light; increase in light **stability** of **cosmetic** preps. by the addition of **iminodisuccinic acid**)

IT Transparent materials

(packaging; increase in light **stability** of **cosmetic** preps. by the addition of **iminodisuccinic acid**)

IT Packaging materials

(transparent; increase in light **stability** of **cosmetic** preps. by the addition of **iminodisuccinic acid**)

IT 7408-20-0, **Iminodisuccinic acid**

37406-24-9, L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]-, tetrasodium salt

RL: COS (**Cosmetic use**); BIOL (**Biological study**); **USES** (**Uses**)

(increase in light **stability** of **cosmetic** preps. by the addition of **iminodisuccinic acid**)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Argembeau; WO 02055050 A 2002

(2) Beiersdorf Ag; EP 1074239 A 2001 HCAPLUS

IT 7408-20-0, **Iminodisuccinic acid**

37406-24-9, L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]-, tetrasodium salt

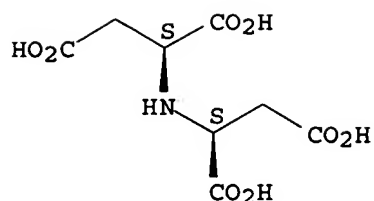
RL: COS (**Cosmetic use**); BIOL (**Biological study**); **USES** (**Uses**)

(increase in light **stability** of **cosmetic** preps. by the addition of **iminodisuccinic acid**)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

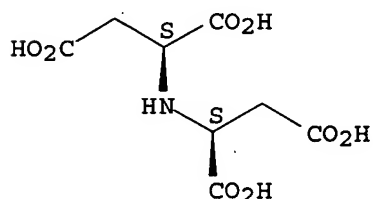
Absolute stereochemistry.



RN 37406-24-9 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●4 Na

L41 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:202440 HCAPLUS

DN 138:209975

ED Entered STN: 14 Mar 2003

TI Stabilisation of oxidation-sensitive and UV-sensitive active ingredients with dialkyl naphthalates

IN Wendel, Volker; Goeppel, Anja

PA Beiersdorf A.-G., Germany

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM A61K007-42

ICS A61K007-48; A61K047-14

CC 62-4 (Essential Oils and Cosmetics)

FAN.CNT 1

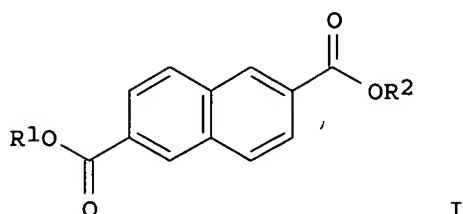
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003020235	A2	20030313	WO 2002-EP9374	20020822 <--
	WO 2003020235	A3	20031127		
	W: US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
	DE 10141472	A1	20030320	DE 2001-10141472	20010829 <--
	EP 1423088	A2	20040602	EP 2002-779270	20020822 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
	US 2004247541	A1	20041209	US 2004-789881	20040227 <--
PRAI	DE 2001-10141472	A	20010829 <--		
	WO 2002-EP9374	W	20020822		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES



WO 2003020235 ICM A61K007-42  
 ICS A61K007-48; A61K047-14  
 DE 10141472 ECLA A61K047/14 <--  
 US 2004247541 ECLA A61K008/37; A61K008/42; A61K008/44; A61K008/60A;  
 A61K008/67; A61K008/67F; A61K008/67F3; A61K008/67H;  
 A61K008/7; A61K047/14; A61Q001/00; A61Q005/00;  
 A61Q017/04; A61Q019/00; A61Q019/08 <--  
 OS MARPAT 138:209975  
 GI



AB The invention relates to **cosmetic** and dermatol. formulations comprising at least one hydrophilic active ingredient, characterized in that they contain (a) at least one dialkylnaphthalate of structural formula (I), wherein R1 and R2 are selected independently from each other from the group of branched and unbranched alkyl groups having between 6 and 24 carbon atoms. The compns. contain further **cosmetic** substances, e.g. biotin, carnitine, creatine, folic acid, pyridoxine. Thus a O/W sunscreen lotion contained (weight/weight%): glycerin monostearate 0.50; glyceryl stearate citrate 2.00; PEG-40 stearate 0.50; cetyl alc., 2.50; Bu methoxydibenzoyl methane 1.00; ethylhexyl triazone 4.00; diethylhexyl butamido triazone 1.00; phenylbenzimidazole sulfonic acid 0.50; bioctyl triazole 2.00; diethylhexyl-2,6-naphthalate 3.50; titanium dioxide 1.00; butylene glycol dicaprylate/dicaprate 5.00; cyclomethicone 2.00; PVP-hexadecene copolymer 0.50; glycerin 3.00; xanthan gum 0.15; Vitamin E acetate 0.50; α-glucosylrutin 0.25; methylparaben 0.15; phenoxyethanol 1.00; **iminodisuccinic acid** 0.35; perfume 0.20; water to 100.

ST sunscreen **stability** dialkyl naphthalate

IT **Cosmetics**  
 (emulsions; **stabilization** of oxidation-sensitive and UV-sensitive active ingredients with dialkylnaphthalates)

IT Aloe barbadensis  
 Hamamelis  
 (extract of; **stabilization** of oxidation-sensitive and UV-sensitive active ingredients with dialkylnaphthalates)

IT Hydrophilicity  
 Pigments, nonbiological  
**Stabilizing agents**  
**Sunscreens**  
 (**stabilization** of oxidation-sensitive and UV-sensitive active ingredients with dialkylnaphthalates)

IT Amino acids, biological studies  
 Flavonoids  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (**stabilization** of oxidation-sensitive and UV-sensitive active ingredients with dialkylnaphthalates)

IT 57-00-1, Creatine 58-85-5, Biotin 59-30-3, Folic acid, biological studies 65-23-6, Pyridoxine 81-13-0, Panthenol 95-14-7D, 1H-Benzotriazole, derivs. 98-92-0, Niacinamide 290-87-9D,

1,3,5-Triazine, derivs. 541-15-1, Carnitine 1141-38-4D,  
 2,6-Naphthalenedicarboxylic acid, dialkyl esters 1314-13-2, Zinc oxide,  
 biological studies 1406-18-4, Vitamin E 13463-67-7, Titanium dioxide,  
 biological studies 70356-09-1, 4-(tert-Butyl)-4'-methoxydibenzoylmethane  
 127474-91-3, 2,6-Naphthalenedicarboxylic acid, bis(2-ethylhexyl) ester  
 130603-71-3,  $\alpha$ -Glucosylrutin 180898-37-7, 1H-Benzimidazole-4,6-  
 disulfonic acid, 2,2'-(1,4-phenylene)bis-, disodium salt 187393-00-6,  
 Tinosorb S

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (stabilization of oxidation-sensitive and UV-sensitive active  
 ingredients with dialkyl naphthalates)

L41 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:202437 HCAPLUS

DN 138:209974

ED Entered STN: 14 Mar 2003

TI **Cosmetic** and dermatological preparations containing insect  
 repellents, sunscreens and dialkyl naphthalates as **stabilizers**

IN Wendel, Volker; Goepfel, Anja; Suckert, Anja

PA **Beiersdorf A.-G., Germany**

SO PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM A61K007-40

ICS A61K047-14

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 5

FAN.CNT 1

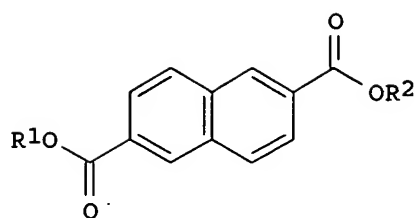
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003020232	A2	20030313	WO 2002-EP9543	20020827 <--
	WO 2003020232	A3	20031204		
	W: US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
	DE 10141471	A1	20030320	DE 2001-10141471	20010829 <--
	EP 1423086	A2	20040602	EP 2002-767437	20020827 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
	US 2004170660	A1	20040902	US 2004-789711	20040227 <--
PRAI	DE 2001-10141471	A	20010829	<--	
	WO 2002-EP9543	W	20020827		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003020232	ICM	A61K007-40
	ICS	A61K047-14
DE 10141471	ECLA	A61K008/37; A61K008/42; A61Q001/00; A61Q005/00; A61Q017/02; A61Q017/04; A61Q019/00
US 2004170660	ECLA	A61K008/37; A61K008/42; A61Q001/00; A61Q005/00; A61Q017/02; A61Q017/04; A61Q019/00

OS MARPAT 138:209974

GI



AB The invention relates to **cosmetic** and dermatol. formulations comprising at least one insect repellent and at least one dialkyl naphthalate of structural formula (I), wherein R1 and R2 are selected independently from each other from the group of branched and unbranched alkyl groups having between 6 and 24 carbon atoms. The compns. contain sunscreens. Thus a O/W sunscreen emulsion contained (weight/weight%): glycerin monostearate 0.50; glyceryl stearate citrate 2.00; PEG-40 stearate 0.50; cetyl alc. 2.50; Bu methoxydibenzoyl methane 1.00; disodium Ph dibenzimidazole tetrasulfonate 2.50; ethylhexyl triazone 4.00; 4-methylbenzylidene camphor 4.00; diethylhexyl butamido triazone 1.00; phenylbenzimidazole sulfonic acid 0.50; methylene bis-benzotriazolyl tetra-Me Bu phenol 2.00; diethylhexyl-2,6-naphthalate 3.50; Repellent 3535 5.0; titanium dioxide 1.00; butylene glycol dicaprylate/dicaprate 5.00; cyclomethicone 2.00; PVP-hexadecene copolymer 0.50; glycerin 3.00; xanthan gum 0.15; Vitamin E acetate 0.50; styrene-acrylate copolymer 0.80; methylparaben 0.15; phenoxyethanol 1.00; **iminodisuccinic acid** 0.35; perfume 0.20; water to 100.

ST insect repellent sunscreen **stability** dialkyl naphthalate

IT Insect repellents

Pigments, nonbiological

**Stabilizing agents**

**Sunscreens**

(**cosmetic** and dermatol. prepns. containing insect repellents, sunscreens and dialkyl naphthalates as **stabilizers**)

IT 131-11-3, Dimethyl phthalate 134-62-3, N,N-Diethyl-3-methylbenzamide 52304-36-6, Repellent 3535 119515-38-7, KBR 3023

RL: BUU (Biological use, unclassified); COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(**cosmetic** and dermatol. prepns. containing insect repellents, sunscreens and dialkyl naphthalates as **stabilizers**)

IT 95-14-7D, 1H-Benzotriazole, derivs. 290-87-9D, 1,3,5-Triazine, derivs. 1141-38-4D, 2,6-Naphthalenedicarboxylic acid, dialkyl esters 1314-13-2, Zinc oxide, biological studies 13463-67-7, Titanium dioxide, biological studies 70356-09-1, 4-(tert-Butyl)-4'-methoxydibenzoylmethane 127474-91-3, 2,6-Naphthalenedicarboxylic acid, bis(2-ethylhexyl) ester 187393-00-6, Tinosorb S

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(**cosmetic** and dermatol. prepns. containing insect repellents, sunscreens and dialkyl naphthalates as **stabilizers**)

L41 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:154769 HCAPLUS

DN 138:209902

ED Entered STN: 28 Feb 2003

TI Compositions comprising a hydroxide compound and an oxidizing agent for straightening curly hair

IN Nguyen, Nghi Van; Cannell, David W.

PA USA

SO U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DT Patent

LA English  
 IC ICM A61K007-13  
 NCL 008405000; 008406000; 008432000  
 CC 62-3 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003037384	A1	20030227	US 2001-931913	20010820 <--
	WO 2003015732	A1	20030227	WO 2002-US21848	20020816 <--
	W: CA, JP, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
PRAI	US 2001-931913	A	20010820	<--	

## CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	US 2003037384	ICM	A61K007-13
		NCL	008405000; 008406000; 008432000
	US 2003037384	ECLA	A61K008/19; A61K008/22; A61Q005/04 <--
AB	Compns., optionally heat-activated, methods and kits for lanthionizing keratinous fibers to achieve relaxation of the keratinous fibers comprising applying to keratinous fibers a composition comprising at least one hydroxide compound and at least one oxidizing agent. For example, compns. comprising 0.01-0.5% NaOH and 3-12% H2O2 were prepared. A naturally kinky hair swatch was either sprayed with, or was soaked in, the solution and then blotted dry. A hot curling iron was used to pull the hair straight for 3-12 s. The hair swatch was rinsed and shampooed, and then placed in a humidity chamber at 90% relative humidity for 24 h. The relaxing efficacy was, e.g., 22% for the composition containing 0.01% NaOH and 1% H2O2, and 96% for the composition containing 0.5% NaOH and 12% H2O2.		
ST	hydroxide oxidizing agent hair straightener		
IT	Zeolites (synthetic), biological studies		
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (analcime-type; cation exchanger; hair straightening compns. comprising hydroxide and oxidizing agent)		
IT	Zeolites (synthetic), biological studies		
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (brewsterite-type; hair straightening compns. comprising hydroxide and oxidizing agent)		
IT	Clays, biological studies		
	Silicates, biological studies		
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (cation exchangers; hair straightening compns. comprising hydroxide and oxidizing agent)		
IT	Zeolites (synthetic), biological studies		
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (edingtonite-type; hair straightening compns. comprising hydroxide and oxidizing agent)		
IT	Zeolites (synthetic), biological studies		
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (epistilbite-type; hair straightening compns. comprising hydroxide and oxidizing agent)		
IT	Zeolites (synthetic), biological studies		
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (gismondine-type; hair straightening compns. comprising hydroxide and oxidizing agent)		
IT	Zeolites (synthetic), biological studies		
	RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (gmelinite-type; hair straightening compns. comprising hydroxide and oxidizing agent)		
IT	Cation exchangers		
	Chelating agents		

Oxidizing agents  
Sequestering agents  
Surfactants  
    (hair straightening compns. comprising hydroxide and oxidizing agent)

IT Amino acids, biological studies  
Chabazite-type zeolites  
Crown ethers  
Faujasite-type zeolites  
Hydroxides (inorganic)  
Mordenite-type zeolites  
Phosphates, biological studies  
Polysiloxanes, biological studies  
Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (hair straightening compns. comprising hydroxide and oxidizing agent)

IT Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (harmotome-type; hair straightening compns. comprising hydroxide and oxidizing agent)

IT Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (heulandite-type; hair straightening compns. comprising hydroxide and oxidizing agent)

IT Carboxylic acids, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (hydroxy; hair straightening compns. comprising hydroxide and oxidizing agent)

IT Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (laumontite-type; hair straightening compns. comprising hydroxide and oxidizing agent)

IT Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (levyne-type; hair straightening compns. comprising hydroxide and oxidizing agent)

IT Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (mesolite-type; hair straightening compns. comprising hydroxide and oxidizing agent)

IT Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (natrolite-type; hair straightening compns. comprising hydroxide and oxidizing agent)

IT Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (phillipsite-type; hair straightening compns. comprising hydroxide and oxidizing agent)

IT Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (scolecite-type; hair straightening compns. comprising hydroxide and oxidizing agent)

IT Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (stilbite-type; hair straightening compns. comprising hydroxide and oxidizing agent)

IT Hair preparations  
    (straighteners; hair straightening compns. comprising hydroxide and oxidizing agent)

IT Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
    (thomsonite-type; hair straightening compns. comprising hydroxide and oxidizing agent)

IT 53404-51-6, Potassium EDTA

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(Potassium EDTA; hair straightening compns. comprising hydroxide and oxidizing agent)

IT 60-00-4, Ethylenediaminetetraacetic acid, biological studies 67-42-5  
67-43-6, Diethylenetriaminepentaacetic acid 77-92-9, Citric acid,  
biological studies 87-69-4, Tartaric acid, biological studies 93-62-9,  
N-2-Hydroxyethyliminodiacetic acid 124-43-6 139-13-9, Nitrilotriacetic  
acid 139-33-3 142-47-2, Monosodium glutamate 150-39-0,  
N-(Hydroxyethyl)ethylene diamine triacetic acid 526-95-4, Gluconic acid  
1310-58-3, Potassium hydroxide, biological studies 1310-65-2, Lithium  
hydroxide 1310-73-2, Sodium hydroxide, biological studies 1327-36-2,  
Aluminosilicate 6419-19-8, Aminotrimethylenephosphonic acid 6834-92-0,  
Disodium silicate 7408-20-0, Iminodisuccinic  
acid 7601-54-9, Trisodium phosphate 7722-84-1, Hydrogen  
peroxide, biological studies 7778-53-2, Tripotassium phosphate  
7789-31-3D, Bromic acid, alkali metal salts 10006-28-7 14531-56-7  
148124-42-9 443976-78-1

RL: COS (Cosmetic use); BIOL (Biological study); USES  
(Uses)

(hair straightening compns. comprising hydroxide and oxidizing agent)

IT 7408-20-0, Iminodisuccinic acid

RL: COS (Cosmetic use); BIOL (Biological study); USES

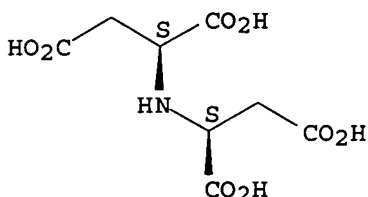
(Uses)

(hair straightening compns. comprising hydroxide and oxidizing agent)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:153427 HCAPLUS

DN 138:175588

ED Entered STN: 28 Feb 2003

TI Cosmetic and dermatological sunscreen compositions comprising UV  
filters that are liquid at room temperature and iminodisuccinic  
acid and/or its salts

IN Knueppel, Anja; Kranz, Ariane; Doerschner, Albrecht; Kroepke,  
Rainer

PA Beiersdorf AG, Germany

SO Ger. Offen., 18 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM A61K007-40

ICS A61K007-48

CC 62-4 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10140547	A1	20030227	DE 2001-10140547	20010817 <--
	EP 1306080	A1	20030502	EP 2002-16620	20020725 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

PRAI DE 2001-10140547 A 20010817 &lt;--

## CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

DE 10140547	ICM	A61K007-40	
	ICS	A61K007-48	
DE 10140547	ECLA	A61K008/44; A61Q017/04	<--
EP 1306080	ECLA	A61K008/44; A61Q017/04	<--

AB The invention concerns **cosmetic** and dermatol. sunscreens that contain at least one UV filter that are liquid at room temperature and **iminodisuccinic acid** and/or its salts. The compns. contain addnl. sunscreens from the group of triazines, benzotriazoles, and organic or inorg. pigments. Thus an O/W emulsion contained (weight/weight%): glycerin monostearate 0.50; glyceryl stearate citrate 2.00; PEG-40 stearate 0.50; butylmethoxydibenzoyl methane 2.00; diethylhexyl butamidotriazone 1.50; ethylhexyltriazone 4.00; Parsol SLX 3.50; ethylhexyl methoxycinnamate 10.00; bisimidazylate 1.00; phenylbenzimidazole sulfonic acid 0.50, MT-100 Z 1.00; dimethicone 0.50; PVP-hexadecane copolymer 0.50; glycerin 3.00; xanthan gum 0.15; Vitamin E acetate 0.50; Baypure CX 100 0.30; EDTA 0.10; methylparaben 0.15; phenoxyethanol 1.00; perfume 0.20; water to 100.

ST sunscreen liq UV filter iminodisuccinate

IT **Sunscreens**

(**cosmetic** and dermatol. sunscreen compns. comprising UV filters that are liquid at room temperature and **iminodisuccinic acid** and/or its salts)

## IT Polysiloxanes, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(di-Me, 3-[4-[3-ethoxy-2-(ethoxycarbonyl)-3-oxo-1-propenyl]phenoxy]-1-propenyl Me; **cosmetic** and dermatol. sunscreen compns. comprising UV filters that are liquid at room temperature and **iminodisuccinic acid** and/or its salts)

IT **Cosmetics**

(**emulsions**; **cosmetic** and dermatol. sunscreen compns. comprising UV filters that are liquid at room temperature and **iminodisuccinic acid** and/or its salts)

IT **Emulsions**

(oil-in-water; **cosmetic** and dermatol. sunscreen compns. comprising UV filters that are liquid at room temperature and **iminodisuccinic acid** and/or its salts)

IT 58-95-7, Vitamin E acetate 95-14-7D, 1H-Benzotriazole, derivs.  
131-57-7, Benzophenone-3 1314-13-2, Zinc oxide, biological studies  
1406-18-4, Vitamin E 5466-77-3, Octylmethoxycinnamate 6197-30-4, Octocrylene 7408-20-0, **Iminodisuccinic acid**  
7408-20-0D, **Iminodisuccinic acid**, salts  
12654-97-6D, Triazine, derivs. 13463-67-7, Titanium dioxide, biological studies 27503-81-7, Phenylbenzimidazole sulfonic acid 36861-47-9  
70356-09-1, Butylmethoxydibenzoyl methane 88122-99-0, Octyltriazone  
103597-45-1, Tinosorb M 130603-71-3,  $\alpha$ -Glucosylrutin  
154702-15-5, Diethylhexylbutamidotriazone 180898-37-7, Bisimidazylate  
191419-26-8, Aniso Triazine  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(**cosmetic** and dermatol. sunscreen compns. comprising UV filters that are liquid at room temperature and **iminodisuccinic acid** and/or its salts)

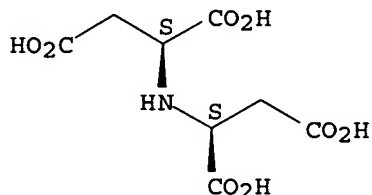
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

## RE

- (1) Anon; JP 09110813 A2 HCAPLUS
- (2) Anon; DE 10034101 A1 HCAPLUS
- (3) Anon; DE 19603018 A1 HCAPLUS
- (4) Anon; DE 19643515 A1 HCAPLUS
- (5) Anon; DE 19713911 A1 HCAPLUS

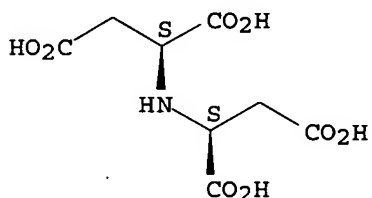
IT 7408-20-0, **Iminodisuccinic acid**  
 7408-20-0D, **Iminodisuccinic acid, salts**  
 RL: COS (Cosmetic use); BIOL (Biological study); **USES**  
 (Uses)  
 (cosmetic and dermatol. sunscreen compns. comprising UV  
 filters that are liquid at room temperature and **iminodisuccinic**  
**acid and/or its salts**)  
 RN 7408-20-0 HCAPLUS  
 CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 7408-20-0 HCAPLUS  
 CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2003:153328 HCAPLUS  
 DN 138:175586  
 ED Entered STN: 28 Feb 2003  
 TI **Cosmetic** and dermatological sunscreen compositions comprising  
 oil soluble UV filters and **iminodisuccinic acid** and/or  
 its salts  
 IN **Goeppel, Anja**; Krantz, Ariane; Doerschner, Albrecht;  
**Kroepke, Rainer**  
 PA **Beiersdorf AG, Germany**  
 SO Eur. Pat. Appl., 16 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 IC ICM A61K007-42  
 ICS A61K007-00  
 CC 62-4 (Essential Oils and **Cosmetics**)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1285648	A2	20030226	EP 2002-16621	20020725 <--
	EP 1285648	A3	20030507		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	DE 10140546	A1	20030306	DE 2001-10140546	20010817 <--
PRAI	DE 2001-10140546	A	20010817	<--	

CLASS



PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1285648	ICM	A61K007-42
	ICS	A61K007-00
EP 1285648	ECLA	A61K008/04F; A61K008/44; A61K008/49F3; A61Q017/04; A61Q019/00; A61Q019/08; A61K008/35C; A61K008/42 <--
DE 10140546	ECLA	A61K008/04F; A61K008/35C; A61K008/42; A61K008/44; A61K008/49F3; A61Q017/04; A61Q019/00; A61Q019/08 <--

AB The invention concerns **cosmetic** and dermatol. sunscreens that contain at least one oil-soluble UV filter and **iminodisuccinic acid** and/or its salts. The compns. contain addnl. sunscreens from the group of triazines, benzotriazoles, and organic or inorg. pigments. Thus an O/W emulsion contained (weight/weight%): glycerin monostearate 0.50; glyceryl stearate citrate 2.00; PEG-40 stearate 0.50; butylmethoxydibenzoyl methane 2.00; ethylhexyltriazone 4.00; Parsol SLX 3.50; 4-methylbenzylidene camphor 4.00; bisimidazylate 1.00; phenylbenzimidazole sulfonic acid 0.50, titanium dioxide 1.00; butyleneglycol dicaprylate /dicaprate 5.00; cyclomethicone 2.00; PVP-hexadecane copolymer 0.50; glycerin 3.00; xanthan gum 0.15; Vitamin E acetate 0.50; Baypure CX 100 0.30; EDTA 0.10; methylparaben 0.15; phenoxyethanol 1.00; perfume 0.20; water to 100.

ST sunscreen oil soluble UV filter iminodisuccinate

IT Solubility

**Sunscreens**  
(**cosmetic** and dermatol. sunscreen compns. comprising oil soluble UV filters and **iminodisuccinic acid** and/or its salts)

IT Polysiloxanes, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(di-Me, 3-[4-[3-ethoxy-2-(ethoxycarbonyl)-3-oxo-1-propenyl]phenoxy]-1-propenyl Me; **cosmetic** and dermatol. sunscreen compns. comprising oil soluble UV filters and **iminodisuccinic acid** and/or its salts)

IT **Cosmetics**  
(**emulsions**; **cosmetic** and dermatol. sunscreen compns. comprising oil soluble UV filters and **iminodisuccinic acid** and/or its salts)

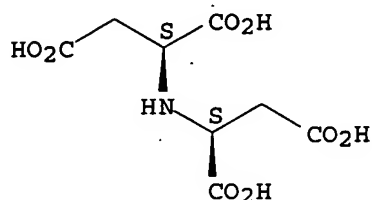
IT Emulsions  
(oil-in-water; **cosmetic** and dermatol. sunscreen compns. comprising oil soluble UV filters and **iminodisuccinic acid** and/or its salts)

IT 58-95-7, Vitamin E acetate 95-14-7D, 1H-Benzotriazole, derivs. 131-57-7, Benzophenone-3 1314-13-2, Zinc oxide, biological studies 1406-18-4, Vitamin E 5466-77-3, Octylmethoxycinnamate 6197-30-4, Octocrylene 7408-20-0, **Iminodisuccinic acid** 7408-20-0D, **Iminodisuccinic acid**, salts 12654-97-6D, Triazine, derivs. 13463-67-7, Titanium dioxide, biological studies 27503-81-7, Phenylbenzimidazole sulfonic acid 36861-47-9 70356-09-1, Butylmethoxydibenzoyl methane 88122-99-0, Octyltriazone 103597-45-1, Tinosorb M 130603-71-3,  $\alpha$ -Glucosylrutin 154702-15-5, Diethylhexylbutamidotriazone 180898-37-7, Bisimidazylate 191419-26-8, Aniso Triazine  
RL: COS (Cosmetic use); BIOL (Biological study); **USES** (Uses)  
(**cosmetic** and dermatol. sunscreen compns. comprising oil soluble UV filters and **iminodisuccinic acid** and/or its salts)

IT 7408-20-0, **Iminodisuccinic acid** 7408-20-0D, **Iminodisuccinic acid**, salts  
RL: COS (Cosmetic use); BIOL (Biological study); **USES** (Uses)  
(**cosmetic** and dermatol. sunscreen compns. comprising oil soluble UV filters and **iminodisuccinic acid** and/or its

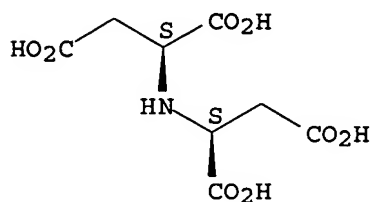
salts)  
 RN 7408-20-0 HCAPLUS  
 CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 7408-20-0 HCAPLUS  
 CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



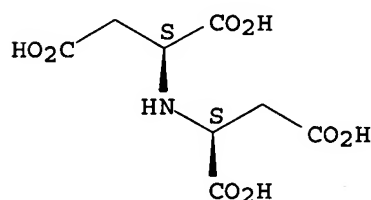
L41 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2003:133647 HCAPLUS  
 DN 138:175528  
 ED Entered STN: 21 Feb 2003  
 TI Compositions comprising at least one hydroxide compound and at least one  
 reducing agent, and methods for relaxing hair  
 IN Nguyen, Nghi Van; Cannell, David W.  
 PA USA  
 SO U.S. Pat. Appl. Publ., 12 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM A61K007-13  
 NCL 008405000; 008406000; 008432000  
 CC 62-3 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003033677	A1	20030220	US 2001-931912	20010820 <--
	WO 2003015725	A2	20030227	WO 2002-US21849	20020816 <--
	WO 2003015725	A3	20031127		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2001-931912	A	20010820	<--	
CLASS					

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003033677	ICM	A61K007-13
	NCL	008405000; 008406000; 008432000
US 2003033677	ECLA	A61K008/19; A61K008/46; A61Q005/04
AB	Compns., optionally heat-activated, methods and kits for lanthionizing keratinous fibers to achieve relaxation of said keratinous fibers comprising applying to keratinous fibers a composition comprising at least one hydroxide compound and at least one reducing agent chosen from thiols, sulfites, and derivs. thereof, and heating the keratinous fibers. Relaxing efficiency of naturally kinky hair treated with compns. comprising from 0.1% to 1.0% NaOH and up to 5% ammonium thioglycolate was shown.	
ST	hydroxide reducing agent relaxing hair	
IT	Cation exchangers Chelating agents Complexing agents Reducing agents Solvents Waters (compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)	
IT	Alkali metal hydroxides Alkaline earth hydroxides Aluminosilicates, biological studies Amino acids, biological studies Clays, biological studies Crown ethers Hydroxides (inorganic) Silicates, biological studies Sulfites Thioamides Thiols (organic), biological studies Zeolites (synthetic), biological studies RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)	
IT	Sulfonic acids, biological studies RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (derivs.; compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)	
IT	Amino acids, biological studies RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (diamino; compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)	
IT	Actinides Rare earth compounds Transition metal compounds RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (hydroxides; compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)	
IT	Carboxylic acids, biological studies RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (hydroxy; compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)	
IT	Acids, biological studies RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (organic; compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)	
IT	Polyamides, biological studies RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (poly(amino acids); compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)	

- IT Hair preparations  
(straighteners; compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)
- IT Esters, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(thio; compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)
- IT Carboxylic acids, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(thiocarboxylic; compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)
- IT Hydroxides (inorganic)  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(transition metal; compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)
- IT 52-90-4, Cysteine, biological studies 60-00-4, Ethylene-diaminetetraacetic acid, biological studies 67-42-5 67-43-6, Diethylenetriaminepentaacetic acid 67-68-5, DMSO, biological studies 68-11-1, biological studies 77-92-9, Citric acid, biological studies 93-62-9, N-2-Hydroxyethyliminodiacetic acid 139-13-9, Nitrilotriacetic acid 150-39-0, N-(Hydroxyethyl) ethylene diamine triacetic acid 526-83-0, Tartaric acid 526-95-4, Gluconic acid 1310-58-3, Potassium hydroxide, biological studies 1310-65-2, Lithium hydroxide 1310-73-2, Sodium hydroxide, biological studies 1318-10-1, Analcime 1318-50-9, Epistilbite 1318-63-4, Heulandite 1318-80-5, Laumontite 1318-83-8, Levynite 1318-95-2, Natrolite 1319-20-6, Scolecite 2817-45-0, Aminophosphonic acid 5421-46-5, Ammonium thioglycolate 6419-19-8, Aminotrimethylene phosphonic acid 6834-92-0, Disodium silicate 7379-27-3 7379-28-4 **7408-20-0, Iminodisuccinic acid** 7601-54-9, Trisodium phosphate 7778-53-2, Tripotassium phosphate 10006-28-7 12005-30-0, Mesolite 12026-10-7, Thomsonite 12173-28-3, Faujasite 12173-98-7, Mordenite 12174-18-4, Phillipsite 12197-41-0, Brewsterite 12251-23-9, Gismondine 12251-35-3, Gmelinite 12251-39-7, Harmotome 12252-36-7, Edingtonite 12399-58-5, Stilbite 13598-36-2D, Phosphonic acid, derivs. 15181-46-1, Hydrogen sulfite 15477-76-6, Phosphonate 61026-54-8, Chabazite 61146-43-8 148124-42-9 443976-78-1  
RL: COS (Cosmetic use); BIOL (Biological study); **USES**  
(Uses)  
(compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)
- IT **7408-20-0, Iminodisuccinic acid**  
RL: COS (Cosmetic use); BIOL (Biological study); **USES**  
(Uses)  
(compns. comprising at least one hydroxide compound and at least one reducing agent, and methods for relaxing hair)
- RN 7408-20-0 HCAPLUS
- CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



DN 138:175873  
 ED Entered STN: 21 Feb 2003  
 TI Synergistic microbicidal compositions  
 IN Concannon, Shauna Michelle; Day, Michael John; Duccini, Yves  
 PA Rohm and Haas Company, USA; Associated Octel Company Limited  
 SO PCT Int. Appl., 24 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K031-05  
 ICS A61K031-075; A61K031-195; A61K031-235; A61K031-415; A61K031-425  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 1, 10  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003013491	A1	20030220	WO 2002-US23497	20020724 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	GB 2001-18515	A	20010730	<--	
	GB 2001-18516	A	20010730	<--	
	GB 2001-31120	A	20011220		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003013491	ICM	A61K031-05
	ICS	A61K031-075; A61K031-195; A61K031-235; A61K031-415; A61K031-425

AB Antimicrobial compns. based on the synergistic combination of an amino acid derivative having at least one chiral center and selected com. microbicides are disclosed. Particularly preferred are combinations of ethylenediaminedisuccinic acid and salts together with 5-chloro-2-methyl-3-isothiazolone, 2-methyl-3-isothiazolone, 2-n-octyl-3-isothiazolone, benzisothiazolone, 2-bromo-2-nitro-1,3-propanediol, imidazolidinylurea, 1,3-dimethylol-5,5-dimethylhydantoin, phenoxyethanol or Me parahydroxybenzoate, that provide enhanced antimicrobial efficacy at a combined active ingredient level lower than that of the combined individual amino acid derivative and com. microbicide effective use levels. The microbicides, 2-methyl-3-isothiazolone and S,S-ethylenediaminedisuccinic acid sodium salt, showed synergistic activity against Pseudomonas putida.

ST synergistic microbicidal compn

IT Antibacterial agents

Fungicides

Pseudomonas aeruginosa

Pseudomonas putida

(synergistic microbicidal compns.)

IT Amino acids, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(synergistic microbicidal compns.)

IT Antimicrobial agents

(synergistic; synergistic microbicidal compns.)

IT 52-51-7, 2-Bromo-2-nitro-1,3-propanediol 99-76-3, Methyl

p-hydroxybenzoate 122-99-6, Phenoxyethanol 2634-33-5,  
 Benzisothiazolone 2682-20-4, 2-Methyl-3-isothiazolone 6440-58-0,  
 1,3-Dimethylol-5,5-dimethylhydantoin 7408-20-0,  
**Iminodisuccinic acid** 20846-91-7, s,s-  
 Ethylenediaminedisuccinic acid 26172-55-4, 5-Chloro-2-methyl-3-  
 isothiazolone 26530-20-1, 2-n-Octyl-3-isothiazolone 29578-05-0  
 39236-46-9, Imidazolidinyl urea 159410-64-7 194604-51-8  
 RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL  
 (Biological study); **USES (Uses)**  
 (synergistic microbicidal compns.)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE

(1) Blackburn; US 5334582 A 1994 HCAPLUS

(2) Lindner; EP 0787430 A1 1997 HCAPLUS

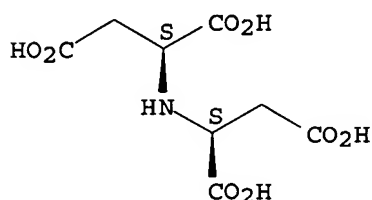
IT 7408-20-0, **Iminodisuccinic acid**

RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL  
 (Biological study); **USES (Uses)**  
 (synergistic microbicidal compns.)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:130599 HCAPLUS

DN 138:175550

ED Entered STN: 20 Feb 2003

TI **Cosmetic** and dermatological sunscreen compositions comprising  
 triazines as UV filters and **iminodisuccinic acid**  
 and/or its salts

IN **Goeppel, Anja**; Kranz, Ariane; Doerschner, Albrecht;  
**Kroepke, Rainer**

PA **Beiersdorf Aktiengesellschaft, Germany**

SO Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DT Patent

LA German

IC ICM A61K007-42

ICS A61K007-48

CC 62-4 (Essential Oils and **Cosmetics**)

Section cross-reference(s): 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1284132	A1	20030219	EP 2002-17994	20020812 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
DE 10140537	A1	20030227	DE 2001-10140537	20010817 <--
PRAI DE 2001-10140537	A	20010817	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1284132	ICM	A61K007-42

ICS A61K007-48  
 EP 1284132 ECLA A61K008/42; A61K008/44; A61K008/49F4; A61Q017/04; A61Q019/08 <--  
 DE 10140537 ECLA A61K008/42; A61K008/44; A61K008/49F4; A61Q017/04; A61Q019/08 <--

AB The invention concerns **cosmetic** and dermatol. sunscreen compns. that contain synergetic compns. of triazines and **iminodisuccinic acid** and/or its salts. The compns. further contain other UV-filters,  $\alpha$ -glucosylrutin, Vitamin E or derivs. The compns. are also skin moisturizers and prevent skin from sun-related aging. Thus an O/W sunscreen emulsion contained (weight/weight%): glyceryl monostearate SE 0.50; glyceryl stearate citrate 2.00; PEG-40 stearate 0.50; Aniso Triazine 0.50; ethylhexyl triazone 4.00; Bu methoxydibenzoyl methane 2.00; bisimidazylate 1.00; phenylbenzimidazole sulfonic acid 0.50; titanium dioxide 1.00; butyleneglycol dicaprylate/dicaprate 5.00; PVP-hexadecene copolymer 0.50; glycerin 3.00; xanthan gum 0.15; Bisaccharide Gum-1 2.50; Vitamin E acetate 0.50; Baypure CX 100 0.30; methylparaben 0.15; phenoxyethanol 1.00; perfume 0.40; water to 100.

ST sunscreen triazine iminodisuccinate synergism

IT **Skin, disease**  
 (aging; **cosmetic** and dermatol. sunscreen compns. comprising triazines as UV filters and **iminodisuccinic acid** and/or its salts)

IT Solubility  
**Sunscreens**  
 (**cosmetic** and dermatol. sunscreen compns. comprising triazines as UV filters and **iminodisuccinic acid** and/or its salts)

IT Polysiloxanes, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (di-Me, 3-[4-[3-ethoxy-2-(ethoxycarbonyl)-3-oxo-1-propenyl]phenoxy]-1-propenyl Me; **cosmetic** and dermatol. sunscreen compns. comprising triazines as UV filters and **iminodisuccinic acid** and/or its salts)

IT **Cosmetics**  
 (emulsions; **cosmetic** and dermatol. sunscreen compns. comprising triazines as UV filters and **iminodisuccinic acid** and/or its salts)

IT **Cosmetics**  
 (moisturizers; **cosmetic** and dermatol. sunscreen compns. comprising triazines as UV filters and **iminodisuccinic acid** and/or its salts)

IT Cooperative phenomena  
 (synergism; **cosmetic** and dermatol. sunscreen compns. comprising triazines as UV filters and **iminodisuccinic acid** and/or its salts)

IT 58-95-7, Vitamin E acetate 290-87-9D, 1,3,5-Triazine, derivs. 1406-18-4, Vitamin E 5466-77-3, 2-Propenoic acid, 3-(4-methoxyphenyl)-, 2-ethylhexyl ester 6197-30-4, Octocrylene 7408-20-0, **Iminodisuccinic acid** 7408-20-0D, **Iminodisuccinic acid**, derivs. 27503-81-7, Phenylbenzimidazole sulfonic acid 36861-47-9 63250-25-9, Eusolex 8020 70356-09-1, Butylmethoxydibenzoylmethane 88122-99-0, Octyl triazone 92761-26-7 103597-45-1, Tinosorb M 130603-71-3,  $\alpha$ -Glucosylrutin 154702-15-5, Diethylhexyl butamidotriazone 155633-54-8, Phenol, 2-(2H-benzotriazol-2-yl)-4-methyl-6-[2-methyl-3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl]- 170864-82-1 180898-37-7, 1H-Benzimidazole-4,6-disulfonic acid, 2,2'-(1,4-phenylene)bis-, disodium salt 191419-26-8, Phenol, 2,2'-(6-(4-methoxyphenyl)-1,3,5-triazine-2,4-diyl)bis[5-[2-hydroxy-3-(1-methylethoxy)propoxy]-  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (**cosmetic** and dermatol. sunscreen compns. comprising

triazines as UV filters and **iminodisuccinic acid**  
and/or its salts)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Argembeau; WO 02055050 A 2002
- (2) Beiersdorf Ag; EP 1074239 A 2001 HCAPLUS
- (3) Beiersdorf Ag; DE 10034101 A 2002 HCAPLUS
- (4) Beiersdorf Ag; DE 10034102 A 2002 HCAPLUS
- (5) Ciba Geigy; EP 0775698 A 1997 HCAPLUS
- (6) Elena, F; WO 0219981 A 2002 HCAPLUS
- (7) Joentgen, W; WO 9845251 A 1998 HCAPLUS
- (8) Nutrinova Nutrition Specialtie; DE 19928495 A 2000 HCAPLUS
- (9) Sigma Prod Chim; EP 0570838 A 1993 HCAPLUS

IT 7408-20-0, **Iminodisuccinic acid**

7408-20-0D, **Iminodisuccinic acid**, derivs.

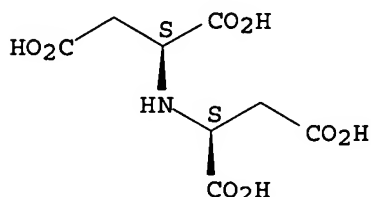
RL: COS (Cosmetic use); BIOL (Biological study); **USES**  
(Uses)

(cosmetic and dermatol. sunscreen compns. comprising  
triazines as UV filters and **iminodisuccinic acid**  
and/or its salts)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

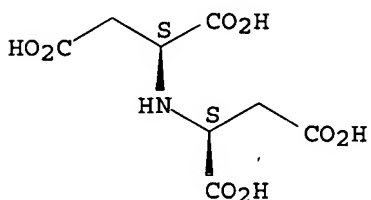
Absolute stereochemistry.



RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:130598 HCAPLUS

DN 138:175549

ED Entered STN: 20 Feb 2003

TI **Cosmetic** and dermatological sunscreen compositions comprising  
benzotriazoles as UV filters and **iminodisuccinic acid**  
and/or its salts

IN **Goepfel, Anja; Kranz, Ariane; Doerschner, Albrecht;**  
**Kroepke, Rainer**

PA **Beiersdorf Aktiengesellschaft, Germany**

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA German



IC ICM A61K007-42  
ICS A61K007-48  
CC 62-4 (Essential Oils and Cosmetics)  
Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1284131	A1	20030219	EP 2002-17993	20020812 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	DE 10140536	A1	20030227	DE 2001-10140536	20010817 <--
PRAI	DE 2001-10140536	A	20010817	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1284131	ICM	A61K007-42
	ICS	A61K007-48
EP 1284131	ECLA	A61K008/42; A61K008/44; A61K008/49F; A61Q017/04; A61Q019/08
DE 10140536	ECLA	A61K008/42; A61K008/44; A61K008/49F; A61Q017/04; A61Q019/08

AB The invention concerns **cosmetic** and dermatol. sunscreen compns. that contain synergetic compns. of benzotriazoles and **iminodisuccinic acid** and/or its salts. The compns. further contain other UV-filters,  $\alpha$ -glucosylrutin, Vitamin E or derivs. The compns. are also skin moisturizers and prevent skin from sun-related aging. Thus an O/W sunscreen emulsion contained (weight/weight%): glyceryl monostearate SE 0.50; glyceryl stearate citrate 2.00; PEG-40 stearate 0.50; Tinosorb M 0.50; Bu methoxydibenzoyl methane 2.00; ethylhexyl triazone 4.00; 4-methylbenzylidene camphor 4.00; bisimidazylate 1.00; phenylbenzimidazole sulfonic acid 0.50; titanium dioxide 1.00; butyleneglycol dicaprylate/dicaprate 5.00; cyclomethicone 2.00; PVP-hexadecene copolymer 0.50; glycerin 3.00; xanthan gum 0.15; Vitamin E acetate 0.50; Baypure CX 100 0.30; EDTA 0.10; methylparaben 0.15; phenoxyethanol 1.00; perfume 0.20; water to 100.

ST sunscreen benzotriazole iminodisuccinate synergism

IT **Skin, disease**  
(aging; **cosmetic** and dermatol. sunscreen compns. comprising benzotriazoles as UV filters and **iminodisuccinic acid** and/or its salts)

IT Solubility  
**Sunscreens**  
(**cosmetic** and dermatol. sunscreen compns. comprising benzotriazoles as UV filters and **iminodisuccinic acid** and/or its salts)

IT Polysiloxanes, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(di-Me, 3-[4-[3-ethoxy-2-(ethoxycarbonyl)-3-oxo-1-propenyl]phenoxy]-1-propenyl Me; **cosmetic** and dermatol. sunscreen compns. comprising benzotriazoles as UV filters and **iminodisuccinic acid** and/or its salts)

IT **Cosmetics**  
(emulsions; **cosmetic** and dermatol. sunscreen compns. comprising benzotriazoles as UV filters and **iminodisuccinic acid** and/or its salts)

IT **Cosmetics**  
(moisturizers; **cosmetic** and dermatol. sunscreen compns. comprising benzotriazoles as UV filters and **iminodisuccinic acid** and/or its salts)

IT Cooperative phenomena  
(synergism; **cosmetic** and dermatol. sunscreen compns. comprising benzotriazoles as UV filters and **iminodisuccinic acid** and/or its salts)

IT 58-95-7, Vitamin E acetate 95-14-7D, 1H-Benzotriazole, derivs.  
 1406-18-4, Vitamin E 5466-77-3, 2-Propenoic acid, 3-(4-methoxyphenyl)-,  
 2-ethylhexyl ester 6197-30-4, Octocrylene 7408-20-0,  
**Iminodisuccinic acid 7408-20-0D,**  
**Iminodisuccinic acid, derivs.** 27503-81-7,  
 Phenylbenzimidazole sulfonic acid 36861-47-9 63250-25-9, Eusolex 8020  
 70356-09-1, Butylmethoxydibenzoylmethane 88122-99-0, Octyl triazone  
 92761-26-7 103597-45-1, Tinosorb M 130603-71-3,  $\alpha$ -Glucosylrutin  
 154702-15-5, Diethylhexyl butamidotriazone 155633-54-8, Phenol,  
 2-(2H-benzotriazol-2-yl)-4-methyl-6-[2-methyl-3-[1,3,3,3-tetramethyl-1-  
 [(trimethylsilyl)oxy]disiloxanyl]propyl]- 170864-82-1 180898-37-7,  
 1H-Benzimidazole-4,6-disulfonic acid, 2,2'-(1,4-phenylene)bis-, disodium  
 salt 191419-26-8, Phenol, 2,2'-[6-(4-methoxyphenyl)-1,3,5-triazine-2,4-  
 diyl]bis[5-[2-hydroxy-3-(1-methylethoxy)propoxy]-  
 RL: COS (Cosmetic use); BIOL (Biological study); **USES**

**(Uses)**

(cosmetic and dermatol. sunscreen compns. comprising  
 benzotriazoles as UV filters and **iminodisuccinic acid**  
 and/or its salts)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE

- (1) Argembeau; WO 02055050 A 2002
- (2) Beiersdorf Ag; EP 1074239 A 2001 HCAPLUS
- (3) Beiersdorf Ag; DE 10034101 A 2002 HCAPLUS
- (4) Beiersdorf Ag; DE 10034102 A 2002 HCAPLUS
- (5) Elena, F; WO 0219981 A 2002 HCAPLUS
- (6) Hansenne, I; US 5618520 A 1997 HCAPLUS
- (7) Joentgen, W; WO 9845251 A 1998 HCAPLUS
- (8) Nutrinova Nutrition Specialtie; DE 19928495 A 2000 HCAPLUS
- (9) Oreal; EP 1093796 A 2001 HCAPLUS

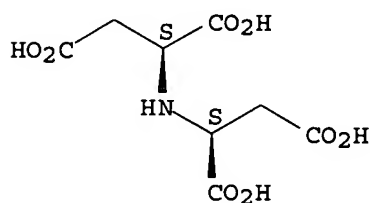
IT 7408-20-0, **Iminodisuccinic acid**  
 7408-20-0D, **Iminodisuccinic acid, derivs.**  
 RL: COS (Cosmetic use); BIOL (Biological study); **USES**  
**(Uses)**

(cosmetic and dermatol. sunscreen compns. comprising  
 benzotriazoles as UV filters and **iminodisuccinic acid**  
 and/or its salts)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

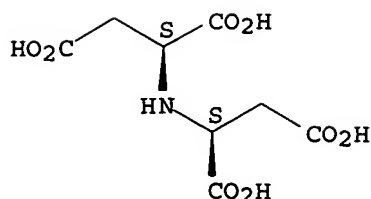
Absolute stereochemistry.



RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2003:130597 HCAPLUS  
 DN 138:175548  
 ED Entered STN: 20 Feb 2003  
 TI **Cosmetic** and dermatological sunscreen compositions comprising  
 dibenzoyl methane derivs. as UV filters and **iminodisuccinic**  
**acid** and/or its salts  
 IN **Goeppel, Anja**; **Kranz, Ariane**; **Doerschner, Albrecht**;  
**Kroepke, Rainer**  
 PA **Beiersdorf AG, Germany**  
 SO Eur. Pat. Appl., 17 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 IC ICM A61K007-42  
 ICS A61K007-48  
 CC 62-4 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1284130	A2	20030219	EP 2002-16606	20020725 <--
	EP 1284130	A3	20030226		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	DE 10140548	A1	20030227	DE 2001-10140548	20010817 <--
PRAI	DE 2001-10140548	A	20010817	<--	

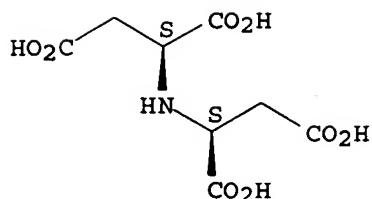
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1284130	ICM	A61K007-42
	ICS	A61K007-48
EP 1284130	ECLA	A61K008/35; A61K008/42; A61K008/44; A61Q017/04; A61Q019/08 <--
DE 10140548	ECLA	A61K008/35; A61K008/42; A61K008/44; A61Q017/04; A61Q019/08 <--

AB The invention concerns **cosmetic** and dermatol. sunscreen compns.  
 that contain synergetic compns. of dibenzoyl methane derivs. as UV filters  
 and **iminodisuccinic acid** and/or its salts. The  
 compns. further contain other UV-filters,  $\alpha$ -glucosylrutin, Vitamin E  
 or derivs. The compns. are also skin moisturizers and prevent skin from  
 sun-related aging. Thus an O/W sunscreen emulsion contained (weight/weight%):  
 glyceryl monostearate SE 0.50; glyceryl stearate citrate 2.00; PEG-40  
 stearate 0.50; hydrogenated cocoglycerides 2.00; Aniso Triazine 0.50; Bu  
 methoxydibenzoyl methane 2.00; ethylhexyl triazone 4.00;  
 4-methylbenzylidene camphor 4.00; bisimidazylate 1.00; phenylbenzimidazole  
 sulfonic acid 0.50; titanium dioxide 1.00; butyleneglycol  
 dicaprylate/dicaprate 5.00; cyclomethicone 2.00; PVP-hexadecene copolymer  
 0.50; glycerin 3.00; xanthan gum 0.15; Vitamin E acetate 0.50; Baypure CX  
 100 0.30; EDTA 0.10; Konkaben LMB 0.10; methylparaben 0.15; phenoxyethanol  
 1.00; perfume 0.20; water to 100.  
 ST sunscreen dibenzoyl methane iminodisuccinate synergism

- IT **Skin, disease**  
(aging; cosmetic and dermatol. sunscreen compns. comprising dibenzoyl methane derivs. as UV filters and **iminodisuccinic acid** and/or its salts)
- IT **Solubility**  
**Sunscreens**  
(cosmetic and dermatol. sunscreen compns. comprising dibenzoyl methane derivs. as UV filters and **iminodisuccinic acid** and/or its salts)
- IT **Polysiloxanes, biological studies**  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(di-Me, 3-[4-[3-ethoxy-2-(ethoxycarbonyl)-3-oxo-1-propenyl]phenoxy]-1-propenyl Me; cosmetic and dermatol. sunscreen compns. comprising dibenzoyl methane derivs. as UV filters and **iminodisuccinic acid** and/or its salts)
- IT **Cosmetics**  
(emulsions; cosmetic and dermatol. sunscreen compns. comprising dibenzoyl methane derivs. as UV filters and **iminodisuccinic acid** and/or its salts)
- IT **Cosmetics**  
(moisturizers; cosmetic and dermatol. sunscreen compns. comprising dibenzoyl methane derivs. as UV filters and **iminodisuccinic acid** and/or its salts)
- IT **Cooperative phenomena**  
(synergism; cosmetic and dermatol. sunscreen compns. comprising dibenzoyl methane derivs. as UV filters and **iminodisuccinic acid** and/or its salts)
- IT 58-95-7, Vitamin E acetate 120-46-7D, Dibenzoyl methane, derivs. 1406-18-4, Vitamin E 5466-77-3, 2-Propenoic acid, 3-(4-methoxyphenyl)-, 2-ethylhexyl ester 6197-30-4, Octocrylene 7408-20-0, **Iminodisuccinic acid** 7408-20-0D, **Iminodisuccinic acid**, derivs. 27503-81-7, Phenylbenzimidazole sulfonic acid 36861-47-9 63250-25-9, Eusolex 8020 70356-09-1, Butylmethoxydibenzoylmethane 88122-99-0, Octyl triazone 92761-26-7 103597-45-1, Tinosorb M 130603-71-3,  $\alpha$ -Glucosylrutin 154702-15-5, Diethylhexyl butamidotriazone 155633-54-8, Phenol, 2-(2H-benzotriazol-2-yl)-4-methyl-6-[2-methyl-3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl]- 170864-82-1 180898-37-7, 1H-Benzimidazole-4,6-disulfonic acid, 2,2'-(1,4-phenylene)bis-, disodium salt 191419-26-8, Phenol, 2,2'-[6-(4-methoxyphenyl)-1,3,5-triazine-2,4-diyl]bis[5-[2-hydroxy-3-(1-methylethoxy)propoxy]-  
RL: COS (Cosmetic use); BIOL (Biological study); USES  
(Uses)  
(cosmetic and dermatol. sunscreen compns. comprising dibenzoyl methane derivs. as UV filters and **iminodisuccinic acid** and/or its salts)
- IT 7408-20-0, **Iminodisuccinic acid**  
7408-20-0D, **Iminodisuccinic acid**, derivs.  
RL: COS (Cosmetic use); BIOL (Biological study); USES  
(Uses)  
(cosmetic and dermatol. sunscreen compns. comprising dibenzoyl methane derivs. as UV filters and **iminodisuccinic acid** and/or its salts)
- RN 7408-20-0 HCAPLUS
- CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

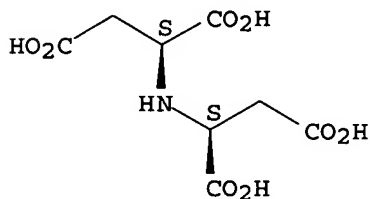
Absolute stereochemistry.



RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:130596 HCAPLUS

DN 138:175547

ED Entered STN: 20 Feb 2003

TI **Cosmetic** and dermatological sunscreen compositions comprising water-soluble UV filters and **iminodisuccinic acid** and/or its salts.IN **Goeppel, Anja**; Kranz, Ariane; Doerschner, Albrecht; **Kroepke, Rainer**PA **Beiersdorf AG, Germany**

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA German

IC ICM A61K007-42

ICS A61K007-48

CC 62-4 (Essential Oils and **Cosmetics**)

Section cross-reference(s): 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1284129	A1	20030219	EP 2002-16605	20020725 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
DE 10140540	A1	20030306	DE 2001-10140540	20010817 <--
PRAI DE 2001-10140540	A	20010817	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1284129	ICM	A61K007-42
	ICS	A61K007-48
EP 1284129	ECLA	A61K008/35; A61K008/42; A61K008/44; A61K008/49F4; A61Q017/04; A61Q019/08
DE 10140540	ECLA	A61K008/35; A61K008/42; A61K008/44; A61K008/49F4; A61Q017/04; A61Q019/08

AB The invention concerns **cosmetic** and dermatol. sunscreen compns. that contain synergetic compns. of water-soluble UV filters and **iminodisuccinic acid** and/or its salts. The compns.

further contain other UV-filters,  $\alpha$ -glucosylrutin, Vitamin E or derivs. The compns. are also skin moisturizers and prevent skin from sun-related aging. Thus an O/W sunscreen emulsion contained (weight/weight%): glyceryl stearate citrate 2.00; PEG-40 stearate 0.50; Bu methoxydibenzoyl methane 2.00; bisimidazylate 1.00; phenylbenzimidazole sulfonic acid 0.50; titanium dioxide 1.00; dicaprylyl carbonate 5.00; cyclomethicone 2.00; PVP-hexadecene copolymer 0.50; glycerin 3.00; xanthan gum 0.15; Vitamin E acetate 0.50; Baypure CX 100 0.30; EDTA 0.10; methylparaben 0.15; phenoxyethanol 1.00; perfume 0.20; water to 100.

ST sunscreen iminodisuccinate synergism

IT **Skin, disease**

(aging; **cosmetic** and dermatol. sunscreen compns. comprising water-soluble UV filters and **iminodisuccinic acid** and/or its salts)

IT Solubility

**Sunscreens**

(**cosmetic** and dermatol. sunscreen compns. comprising water-soluble UV filters and **iminodisuccinic acid** and/or its salts)

IT **Cosmetics**

(**emulsions**; **cosmetic** and dermatol. sunscreen compns. comprising water-soluble UV filters and **iminodisuccinic acid** and/or its salts)

IT **Cosmetics**

(**moisturizers**; **cosmetic** and dermatol. sunscreen compns. comprising water-soluble UV filters and **iminodisuccinic acid** and/or its salts)

IT Cooperative phenomena

(synergism; **cosmetic** and dermatol. sunscreen compns. comprising water-soluble UV filters and **iminodisuccinic acid** and/or its salts)

IT 58-95-7, Vitamin E acetate 1406-18-4, Vitamin E 5466-77-3, 2-Propenoic acid, 3-(4-methoxyphenyl)-, 2-ethylhexyl ester 6197-30-4, Octocrylene 7408-20-0, **Iminodisuccinic acid** 27503-81-7, Phenylbenzimidazole sulfonic acid 36861-47-9 70356-09-1, Butylmethoxydibenzoylmethane 88122-99-0, Octyl triazone 92761-26-7, Mexoryl SX 103597-45-1, Tinosorb M 130603-71-3,  $\alpha$ -Glucosylrutin 154702-15-5, Diethylhexyl butamidotriazone 155633-54-8, Phenol, 2-(2H-benzotriazol-2-yl)-4-methyl-6-[2-methyl-3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl]- 180898-37-7, 1H-Benzimidazole-4,6-disulfonic acid, 2,2'-(1,4-phenylene)bis-, disodium salt 191419-26-8, Phenol, 2,2'-[6-(4-methoxyphenyl)-1,3,5-triazine-2,4-diyl]bis[5-[2-hydroxy-3-(1-methylethoxy)propoxy]- RL: COS (**Cosmetic use**); BIOL (Biological study); **USES** (**Uses**)

(**cosmetic** and dermatol. sunscreen compns. comprising water-soluble UV filters and **iminodisuccinic acid** and/or its salts)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Argembeau; WO 02055050 A 2002
- (2) Beiersdorf Ag; EP 0868904 A 1998 HCAPLUS
- (3) Beiersdorf Ag; DE 19711244 A 1998 HCAPLUS
- (4) Beiersdorf Ag; EP 1074239 A 2001 HCAPLUS
- (5) Beiersdorf Ag; DE 10034101 A 2002 HCAPLUS
- (6) Beiersdorf Ag; DE 10034102 A 2002 HCAPLUS
- (7) Elena, F; WO 0219981 A 2002 HCAPLUS
- (8) Joentgen, W; WO 9845251 A 1998 HCAPLUS
- (9) Lang, G; US 4588839 A 1986 HCAPLUS
- (10) Nutrinova Nutrition Specialtie; DE 19928495 A 2000 HCAPLUS

IT 7408-20-0, **Iminodisuccinic acid**

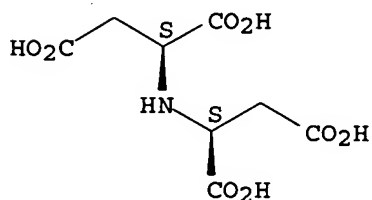
RL: COS (**Cosmetic use**); BIOL (Biological study); **USES** (**Uses**)

(cosmetic and dermatol. sunscreen compns. comprising  
water-soluble UV filters and iminodisuccinic acid  
and/or its salts)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:675791 HCAPLUS

DN 137:221744

ED Entered STN: 08 Sep 2002

TI Hair relaxer compositions comprising a hydroxide compound and an  
activating agent

IN Cannell, David W.; Mathur, Hitendra; Nguyen, Nghi Van

PA L'oreal S.A., Fr.

SO PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-00

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002067875	A1	20020906	WO 2002-US3392	20020221 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2002159962	A1	20021031	US 2001-789667	20010222 <--
	EP 1379214	A1	20040114	EP 2002-723098	20020221 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004533998	T2	20041111	JP 2002-567244	20020221 <--
PRAI	US 2001-789667	A	20010222 <--		
	WO 2002-US3392	W	20020221		

#### CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002067875	ICM	A61K007-00
US 2002159962	ECLA	A61K008/19; A61K008/43; A61K008/44K; A61Q005/04; A61Q005/06 <--
JP 2004533998	FTERM	4C083/AA021; 4C083/AA121; 4C083/AB031; 4C083/AB032; 4C083/AC301; 4C083/AC531; 4C083/AC581; 4C083/AC582; 4C083/AC661; 4C083/AC741; 4C083/AC742; 4C083/AC771; 4C083/AC841; 4C083/AC891; 4C083/AD151; 4C083/AD611;

4C083/BB04; 4C083/BB05; 4C083/BB06; 4C083/BB07;  
 4C083/BB21; 4C083/BB41; 4C083/BB45; 4C083/BB48;  
 4C083/CC34; 4C083/EE21

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AB A composition for lanthionizing keratin fibers, i.e., human hair, comprises (i) at least one hydroxide compound, with the proviso that said at least one hydroxide compound is not sodium hydroxide, lithium hydroxide or potassium hydroxide, and (ii) at least one activating agent chosen from cysteine-based compds. Methods and kits for using the hair relaxer compns. are also described. thereof. For example, natural kinky hair was relaxed using a com. no-lye relaxer cream (5.71% by weight  $\text{Ca}(\text{OH})_2$ ) with an activator solution containing decreasing amts. of guanidine carbonate. The relaxing efficiency decreased as the concentration of guanidine carbonate was lowered. A concentration of guanidine carbonate of > 4.1% by weight in the

final

mixture efficiently relaxed the hair.

ST hair relaxer straightener hydroxide cysteine activating agent

IT Surfactants

(amphoteric; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Surfactants

(anionic; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Surfactants

(cationic; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Amino acids, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(diamino; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Hair preparations

(dyes; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Chelating agents

Sequestering agents

(hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Alkali metal hydroxides

Alkaline earth hydroxides

Amino acids, biological studies

Hydrocarbon oils

Phosphates, biological studies

Polymers, biological studies

Polysiloxanes, biological studies

Proteins

Silicates, biological studies

Vitamins

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Human

(hair; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Hair

(human; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Actinide compounds

Rare earth compounds

Transition metal compounds

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hydroxides; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Sulfonic acids, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)



(hydroxy-containing; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Carboxylic acids, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (hydroxy; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Surfactants  
 (nonionic; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Hair preparations  
 (straighteners; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Hydroxides (inorganic)  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (transition metal; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT Fats and Glyceridic oils, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (vegetable; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT 52-90-4, L-Cysteine, biological studies 52-90-4D, Cysteine, derivs., homologs and salts 60-00-4, EDTA, biological studies 67-43-6 67-68-5, DMSO, biological studies 77-92-9, Citric acid, biological studies 93-62-9, N-2-Hydroxyethyliminodiacetic acid 139-13-9, Nitrilotriacetic acid 139-33-3 142-47-2, Monosodium glutamate 150-39-0, N-(Hydroxyethyl)ethylene diaminetriacetic acid 526-83-0, Tartaric acid 526-95-4, Gluconic acid 616-91-1, N-Acetyl-L-cysteine 1305-62-0, Calcium hydroxide, biological studies 1310-58-3, Potassium hydroxide, biological studies 1310-65-2, Lithium hydroxide 1310-73-2, Sodium hydroxide, biological studies 2338-04-7, L-Homocysteine thiolactone 2485-62-3, Cysteine methyl ester 2817-45-0, Aminophosphonic acid 2885-79-2, N-Propionylcysteine 3411-58-3, Cysteine ethyl ester 6027-13-0, Homocysteine 6419-19-8, Amino trimethylenephosphonic acid 6834-92-0, Disodium silicate 7217-84-7, N-Benzoylcysteine 7408-20-0, Iminodisuccinic acid 7601-54-9, Trisodium phosphate 7778-53-2, Tripotassium phosphate 10006-28-7 10061-64-0 14280-30-9, Hydroxide, biological studies 19900-78-8 24583-23-1 53404-51-6, Potassium EDTA 60654-26-4, L-Cysteine propyl ester 62309-95-9 64120-25-8, Guanidine hydroxide 67603-48-9, N-Caproyl-L-cysteine 100224-74-6, Guanidine carbonate 125559-75-3 148124-42-9 214558-33-5 443976-78-1 454679-15-3 454679-16-4 454679-17-5 454679-18-6 454679-19-7 454679-20-0 455280-34-9, N-Toluoylcysteine 455280-35-0, N-(Ethylbenzyl)cysteine 455280-36-1, N-(Propylbenzoyl)cysteine 455280-37-2, N-Toluoylhomocysteine thiolactone 455280-38-3, N-(Ethylbenzyl)homocysteine thiolactone  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

IT 13598-36-2, Phosphonic acid  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (hydroxy-containing; hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Curtis Helene Ind Inc; EP 0667141 A 1995 HCAPLUS
- (2) Denbeste, M; US 4992267 A 1991 HCAPLUS
- (3) Kolc, S; US 5223252 A 1993 HCAPLUS
- (4) Oreal; EP 0465342 A 1992 HCAPLUS
- (5) Oreal; WO 9301791 A 1993 HCAPLUS
- (6) Repligen Corp; WO 8906122 A 1989 HCAPLUS
- (7) Wella Ag; WO 0174318 A 2001 HCAPLUS

(8) Zahn, H; CHIMIA (SWITZ) 1961, 15, P378

IT 7408-20-0, Iminodisuccinic acid

RL: COS (Cosmetic use); BIOL (Biological study); USES

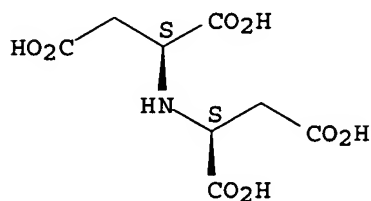
(Uses)

(hair relaxer compns. comprising hydroxide compound and cysteine-based activating agent)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:657911 HCAPLUS

DN 137:190370

ED Entered STN: 30 Aug 2002

TI Hair relaxer system and method therefor

IN Akhter, Humayoun; Syed, Ali N.

PA Avlon Industries, Inc., USA

SO PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002065982	A2	20020829	WO 2002-US2057	20020123 <--
	WO 2002065982	A3	20030403		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003049222	A1	20030313	US 2001-783904	20010215 <--
	US 6602493	B2	20030805		
	EP 1368042	A2	20031210	EP 2002-713455	20020123 <--
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2002007493	A	20040810	BR 2002-7493	20020123 <--
	ZA 2003007113	A	20040701	ZA 2003-7113	20030911 <--
PRAI	US 2001-783904	A	20010215	<--	
	WO 2002-US2057	W	20020123		

CLASS

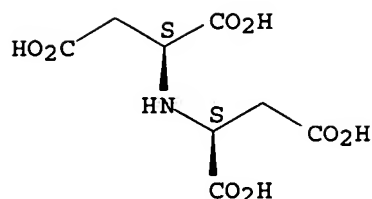
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002065982	ICM	A61K
US 2003049222	ECLA	A61K008/19; A61K008/26; A61K008/27; A61Q005/00;

A61Q005/06

&lt;--

- AB This invention describes a hair relaxer system and method that ameliorates and inhibits the adsorption and retention by alkaline, chemical-relaxed hair of exogenous multivalent metal ion present in the chemical relaxer, in the rinse water or both employed during the process of relaxing naturally curly hair with compns. containing strong chemical base. In a preferred relaxer method aspect, the alkaline, chemical relaxed hair was contacted with an aqueous metal ion chelating composition containing at least one multivalent metal ion chelating agent employing a disclosed delivery system adapted for practical salon use. In another preferred relaxer method embodiment, wipes impregnated with multivalent metal ion chelating composition were employed during the relaxer process.
- ST hair relaxer chelator metal adsorption inhibitor
- IT Chelating agents  
(hair relaxer system comprising chelators for inhibition of metal ion retention in hair)
- IT Alkaline earth metals  
Heavy metals  
Transition metals, processes
- RL: REM (Removal or disposal); PROC (Process)  
(hair relaxer system comprising chelators for inhibition of metal ion retention in hair)
- IT Hair preparations  
(straighteners; hair relaxer system comprising chelators for inhibition of metal ion retention in hair)
- IT Heavy metals  
RL: REM (Removal or disposal); PROC (Process)  
(toxicity; hair relaxer system comprising chelators for inhibition of metal ion retention in hair)
- IT 60-00-4, EDTA, biological studies 64-02-8, Tetrasodium EDTA 67-43-6, Diethylenetriaminepentaacetic acid 93-62-9 139-13-9, Nitrilotriacetic acid 139-33-3, Disodium EDTA 150-39-0, Hydroxyethylethylenediaminetriacetic acid 1170-02-1 5835-28-9, N-Hydroxyethylglycine 7408-20-0, Iminodisuccinic acid 20846-91-7 25608-40-6, Polyaspartic acid 26063-13-8, Polyaspartic acid  
RL: COS (Cosmetic use); BIOL (Biological study); USES  
(Uses)  
(hair relaxer system comprising chelators for inhibition of metal ion retention in hair)
- IT 7429-90-5, Aluminum, processes 7439-89-6, Iron, processes 7439-92-1, Lead, processes 7439-95-4, Magnesium, processes 7439-96-5, Manganese, processes 7440-02-0, Nickel, processes 7440-24-6, Strontium, processes 7440-39-3, Barium, processes 7440-50-8, Copper, processes 7440-66-6, Zinc, processes 7440-70-2, Calcium, processes  
RL: REM (Removal or disposal); PROC (Process)  
(hair relaxer system comprising chelators for inhibition of metal ion retention in hair)
- IT 7408-20-0, Iminodisuccinic acid  
RL: COS (Cosmetic use); BIOL (Biological study); USES  
(Uses)  
(hair relaxer system comprising chelators for inhibition of metal ion retention in hair)
- RN 7408-20-0 HCAPLUS
- CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2002:606391 HCAPLUS  
 DN 137:159022  
 ED Entered STN: 14 Aug 2002  
 TI Crystallization prevention of L-ascorbic acid phosphate magnesium salt and its application to **cosmetic** or topical compositions  
 IN Ogawa, Etsuko  
 PA Nihon Surfactants Industry Co., Ltd., Japan; Nikko Chemicals Co., Ltd.  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07F009-655

ICS A61K007-00; A61K007-48; A61K031-665; A61K047-18; A61K047-20;  
 A61K047-24; A61P017-00

CC 62-4 (Essential Oils and **Cosmetics**)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002226494	A2	20020814	JP 2001-23258	20010131 <--
PRAI JP 2001-23258		20010131	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002226494	ICM	C07F009-655
	ICS	A61K007-00; A61K007-48; A61K031-665; A61K047-18; A61K047-20; A61K047-24; A61P017-00

AB Crystallization of L-ascorbic acid phosphate magnesium salt (I) in solns. is prevented by additives chosen from amino acids, their salts, alkanolamines, and organic chelating agents. An aqueous solution containing I 5.0,

glycine 1.0, and EtOH 8 weight% was stored at 25° for 3 mo without crystallization. A skin-lightening lotion containing I, Na glutamate, and 12-Na phytate was formulated.

ST magnesium ascorbyl phosphate crystn prevention **cosmetic**; topical magnesium ascorbyl phosphate crystn prevention; amino acid ascorbyl phosphate crystn prevention; alkanolamine magnesium ascorbyl phosphate crystn prevention; chelating agent ascorbyl phosphate crystn prevention

IT Alcohols, biological studies

RL: COS (Cosmetic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(amino, crystallization inhibitors; crystallization prevention of Mg ascorbyl phosphate

for **cosmetic** or topical compns.)

IT Chelating agents

(crystallization inhibitors; crystallization prevention of Mg ascorbyl phosphate for

**cosmetic** or topical compns.)

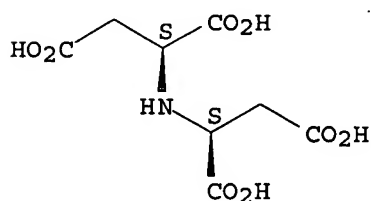
IT Amino acids, biological studies

RL: COS (Cosmetic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(crystallization inhibitors; crystallization prevention of Mg ascorbyl phosphate for

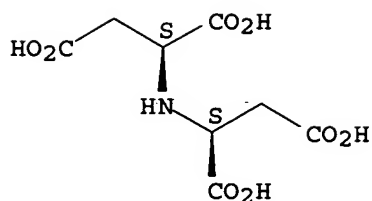
- cosmetic or topical compns.)
- IT Crystallization  
(inhibitors; crystallization prevention of Mg ascorbyl phosphate for cosmetic or topical compns.)
- IT Cosmetics  
(skin-lightening; crystallization prevention of Mg ascorbyl phosphate for cosmetic or topical compns.)
- IT Drug delivery systems  
(topical; crystallization prevention of Mg ascorbyl phosphate for cosmetic or topical compns.)
- IT 56-40-6, Glycine, biological studies 56-86-0, Glutamic acid, biological studies 74-79-3, Arginine, biological studies 83-86-3, Phytic acid 102-71-6, Triethanolamine, biological studies 139-33-3, Disodium EDTA 5598-53-8, Disodium aspartate 7408-20-0, Iminodisuccinic acid 10098-89-2, Lysine hydrochloride 16177-21-2, Sodium glutamate 17211-15-3, Dodecasodium phytate 37406-24-9, Tetrasodium iminodisuccinate 37971-36-1 446049-61-2 446049-63-4  
RL: COS (Cosmetic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(crystallization inhibitor; crystallization prevention of Mg ascorbyl phosphate for cosmetic or topical compns.)
- IT 108910-78-7, L-Ascorbic acid phosphate magnesium salt  
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(crystallization prevention of Mg ascorbyl phosphate for cosmetic or topical compns.)
- IT 7408-20-0, Iminodisuccinic acid 37406-24-9, Tetrasodium iminodisuccinate  
RL: COS (Cosmetic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(crystallization inhibitor; crystallization prevention of Mg ascorbyl phosphate for cosmetic or topical compns.)
- RN 7408-20-0 HCAPLUS
- CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- RN 37406-24-9 HCAPLUS
- CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●4 Na

L41 ANSWER 18 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2002:574884 HCAPLUS  
 DN 137:129537  
 ED Entered STN: 02 Aug 2002  
 TI Hair relaxer compositions utilizing cation exchange compositions  
 IN Cannell, David W.; Nguyen, Nghi Van  
 PA L'Oreal S.A., Fr.  
 SO PCT Int. Appl., 29 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K007-09  
 CC 62-3 (Essential Oils and Cosmetics)  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002058651	A1	20020801	WO 2001-US43193	20011120 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 6435193	B1	20020820	US 2000-717206	20001122 <--
EP 1337232	A1	20030827	EP 2001-994075	20011120 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
US 2003049221	A1	20030313	US 2002-214942	20020809 <--
PRAI US 2000-717206	A	20001122 <--		
WO 2001-US43193	W	20011120		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002058651	ICM	A61K007-09
US 6435193	ECLA	A61K008/19; A61K008/25; A61K008/26; A61K008/27; A61K008/40; A61K008/44; A61K008/46; A61Q005/06 <--
US 2003049221	ECLA	A61K008/19; A61K008/25; A61K008/26; A61K008/27; A61K008/40; A61K008/44; A61K008/46; A61Q005/06 <--

AB A composition for lanthionizing keratin fibers comprising at least one multivalent metal hydroxide and at least one cation exchange composition. The invention is also drawn to a method for lanthionizing keratin fibers to achieve relaxation of the keratinous fibers. Thus a two component hair relaxing compns. were prepared. The cream contained (weight/weight%): cetyl alc.

1.0; steareth-2 0.5; Steareth-10 2.5; mineral oil 15.0; petrolatum 5.5;

cetearyl alc. and cetearyl phosphate 7.5; propylene glycol 3.0; tetrasodium EDTA 30.5; water 34.5. The second components contained 0.3 g calcium hydroxide, 2 g water and various amts. (0; 0.2; 0.5; and 1 g) of zeolite clay (sodium aluminosilicate). 1.8 G of the complexing agent cream and the second component were mixed; the relaxing efficiency increased from 64% to 79% when 1 g zeolite clay was used compared to the composition without zeolite clay.

ST hair relaxer cation exchanger complexing agent

IT Cation exchange

Complexing agents

Solubility

Temperature

pH

(hair relaxer compns. utilizing cation exchange compns.)

IT A zeolites

Aluminosilicates, biological studies

Amino acids, biological studies

Hydroxides (inorganic)

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair relaxer compns. utilizing cation exchange compns.)

IT Carboxylic acids, biological studies

Sulfonic acids, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hydroxy; hair relaxer compns. utilizing cation exchange compns.)

IT Hair preparations

(straighteners; hair relaxer compns. utilizing cation exchange compns.)

IT 60-00-4, Ethylenediaminetetraacetic acid, biological studies 67-42-5

67-68-5, DMSO, biological studies 77-92-9, Citric acid, biological

studies 93-62-9, N-2-Hydroxyethyliminodiacetic acid 102-71-6,

Triethanolamine, biological studies 111-40-0, Diethylenetriamine

111-42-2, Diethanolamine, biological studies 139-13-9, Nitrilotriacetic

acid 141-43-5, Monoethanolamine, biological studies 142-47-2,

Monosodium glutamate 150-39-0, N-(Hydroxyethyl)ethylene diamine

triacetic acid 526-83-0, Tartaric acid 1305-62-0, Calcium hydroxide,

biological studies 1309-42-8, Magnesium hydroxide 1312-76-1, Potassium

silicate 1318-50-9, Epistilbite 1318-63-4, Heulandite 1318-80-5,

Laumontite 1318-83-8, Levynite 1318-95-2, Natrolite 1319-20-6,

Scolecite 1344-00-9, Sodium aluminosilicate 1344-09-8, Sodium silicate

2817-45-0, Aminophosphonic acid 6419-19-8, Aminotrimethylenephosphonic

acid 6834-92-0, Disodium silicate 7408-20-0,

**Iminodisuccinic acid** 7601-54-9, Trisodium phosphate

7778-53-2, Tripotassium phosphate 10006-28-7 12043-66-2, Mesolite

12173-28-3, Faujasite 12173-98-7, Mordenite 12174-18-4, Phillipsite

12197-41-0, Brewsterite 12251-23-9, Gismondine 12251-35-3, Gmelinite

12251-39-7, Harmotome 12252-36-7, Edingtonite 12446-28-5, Stilbite

12626-88-9, Manganese hydroxide 12627-14-4, Lithium silicate

12672-51-4, Cobalt hydroxide 13598-36-2D, Phosphonic acid, hydroxy

derivs. 16970-11-9, Thomsenolite 17194-00-2, Barium hydroxide

18480-07-4, Strontium hydroxide 20427-58-1, Zinc hydroxide 20427-59-2,

Cupric hydroxide 21645-51-2, Aluminum hydroxide, biological studies

53404-51-6, Potassium EDTA 61026-54-8, Chabazite 61146-43-8, Glycine,

N,N'-1,2-ethanediybis[N-(carboxymethyl)-, lithium salt 126853-99-4,

Molybdenum hydroxide 148124-42-9 443976-78-1

RL: COS (Cosmetic use); BIOL (Biological study); USES

(Uses)

(hair relaxer compns. utilizing cation exchange compns.)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Darkwa, A; US 5376364 A 1994 HCAPLUS

(2) Johnson Products Co; WO 9707775 A 1997 HCAPLUS

(3) Oreal; WO 0164171 A 2001 HCAPLUS

(4) Wella Ag; DE 2823243 A 1979 HCAPLUS

IT 7408-20-0, **Iminodisuccinic acid**

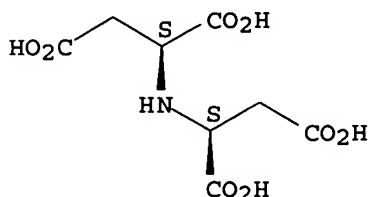
RL: COS (Cosmetic use); BIOL (Biological study); USES  
(Uses)

(hair relaxer compns. utilizing cation exchange compns.)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:516251 HCAPLUS

DN 137:83417

ED Entered STN: 11 Jul 2002

TI **Cosmetic and dermatological soaps containing surfactants and iminodisuccinic acid**

IN Ruppert, Stephan; Counradi, Kathrin; Argembeaux, Horst; Bluck, Manuela

PA **Beiersdorf Ag, Germany**

SO Ger. Offen., 18 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM A61K007-50

CC 62-4 (Essential Oils and **Cosmetics**)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10100720	A1	20020711	DE 2001-10100720	20010110 <--
	WO 2002055050	A1	20020718	WO 2002-EP98	20020108 <--
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1351665	A1	20031015	EP 2002-718012	20020108 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI	DE 2001-10100720	A	20010110 <--		
	WO 2002-EP98	W	20020108		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10100720	ICM	A61K007-50
DE 10100720	ECLA	A61K008/44; A61Q005/02; A61Q019/09; C11D001/94; C11D003/33; C11D010/04; C11D017/00B6; C11D017/00H6 <--

AB The invention concerns liquid, solid or gel cleansing soaps for **cosmetic** and dermatol. usage that contain surfactants and **iminodisuccinic acid**. Thus a shower gel contained (weight/weight%): sodium laureth sulfate (27% solution) 48.00; cocoamidobetaine (33% solution) 5.00; sodium cocoylglutamate (25% solution) 5.00; PEG-40

hydrated

castor oil 0.50; PEG-100 hydrated glycerylpalmitate 0.50; sodium benzoate 0.45; sodium salicylate 0.30; **iminodisuccinic acid** 2; citric acid 0.50; perfume q.s.; water to 100.

ST soap surfactant **iminodisuccinic acid**

IT Alcohols, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)



(C12-13, ethoxylated, sulfated, sodium salts; **cosmetic** and dermatol. soaps containing surfactants and **iminodisuccinic acid**)

- IT Quaternary ammonium compounds, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(alkylbenzyltrimethyl, chlorides; **cosmetic** and dermatol. soaps containing surfactants and **iminodisuccinic acid**)
- IT Glycosides  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(coco and decyl; **cosmetic** and dermatol. soaps containing surfactants and **iminodisuccinic acid**)
- IT Amides, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(coco, N,N-bis(hydroxyethyl); **cosmetic** and dermatol. soaps containing surfactants and **iminodisuccinic acid**)
- IT Amides, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(coco, N-(hydroxyethyl); **cosmetic** and dermatol. soaps containing surfactants and **iminodisuccinic acid**)
- IT Amides, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(coco, alkanolamine salts; **cosmetic** and dermatol. soaps containing surfactants and **iminodisuccinic acid**)
- IT **Cosmetics**  
Surfactants  
(**cosmetic** and dermatol. soaps containing surfactants and **iminodisuccinic acid**)
- IT Soaps  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(**cosmetic** and dermatol. soaps containing surfactants and **iminodisuccinic acid**)
- IT Bath preparations  
(gels; **cosmetic** and dermatol. soaps containing surfactants and **iminodisuccinic acid**)
- IT 107-43-7D, Betaine, alkyl and alkylamidopropyl derivs. 137-16-6, Sodium lauroylsarcosinate 139-96-8, TEA-Laurylsulfate 151-21-3, Sodium-Laurylsulfate, biological studies 577-11-7, Dioctylsodium sulfosuccinate 1562-00-1D, Sodium isethionate, cocoyl derivative 2235-54-3, Ammonium laurylsulfate 4316-73-8D, Sodium sarcosinate, N-cocoyl derivative 7408-20-0, **Iminodisuccinic acid** 9004-82-4, Sodium laureth sulfate 16177-21-2D, Sodium glutamate, acyl derivs. 16693-53-1, Triethanolamine Lauroyl Sarcosinate 26838-05-1, Disodium laurylsulfosuccinate 27731-62-0, Sodium myrethsulfate 27836-64-2, Laurylglucoside 32612-48-9, Ammonium laureth sulfate 34503-11-2D, C12-13-alkyl derivs. 37406-24-9, **Iminodisuccinic acid** tetrasodium salt 52558-73-3, N-Myristoyl Sarcosine 57267-78-4D, Ammoniumisethionate, cocoyl derivative 58450-52-5, Disodiumlaurethsulfosuccinate 60224-41-1 62755-21-9, Magnesium laureth sulfate 67298-08-2D, N-acyl derivs. 83016-76-6 86880-59-3D, N-acyl derivs. 89952-33-0 107647-97-2D, N-acyl derivs. 130926-64-6D, N-acyl derivs.  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(**cosmetic** and dermatol. soaps containing surfactants and **iminodisuccinic acid**)
- RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
- (1) Anon; DE 19713911 A1 HCAPLUS
- (2) Anon; DE 2432161 A1 HCAPLUS
- (3) Anon; US 5977053 A HCAPLUS
- IT 7408-20-0, **Iminodisuccinic acid**  
37406-24-9, **Iminodisuccinic acid** tetrasodium salt

RL: COS (Cosmetic use); BIOL (Biological study); USES

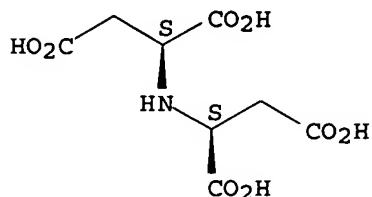
(Uses)

(cosmetic and dermatol. soaps containing surfactants and  
iminodisuccinic acid)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

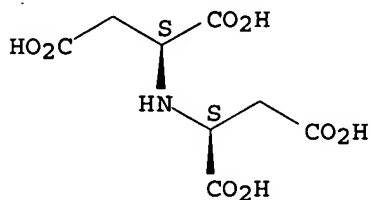
Absolute stereochemistry.



RN 37406-24-9 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 4 Na

L41 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:184869 HCAPLUS

DN 136:236684

ED Entered STN: 15 Mar 2002

TI **Cosmetic and pharmaceutical** compositions containing  
chelating and sequestering agents

IN Fernandez-Kleinlein, Elena; Hauser, Matthias; Biehl, Petra; Von Stetten,  
Otto

PA Johnson & Johnson G.m.b.H., Germany

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-48

ICS A61K031-00; A61K045-08; A61K047-18; A61P017-00

CC 62-4 (Essential Oils and **Cosmetics**)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002019981 ✓	A2	20020314	WO 2001-EP10393	20010907 <--
	WO 2002019981	A3	20030123		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,			

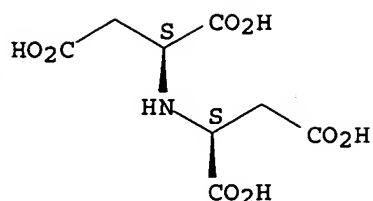
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,  
 RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,  
 UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 CA 2421512 AA 20020314 CA 2001-2421512 20010907 <--  
 AU 2002012219 A5 20020322 AU 2002-12219 20010907 <--  
 EP 1335700 A1 20030820 EP 2001-980358 20010907 <--  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 JP 2004508316 T2 20040318 JP 2002-524466 20010907 <--  
 BR 2001013751 A 20040817 BR 2001-13751 20010907 <--  
 US 2004052826 A1 20040318 US 2003-380083 20030911 <--  
 PRAI EP 2000-203131 A 20000911 <--  
 EP 2000-203737 A 20001026 <--  
 WO 2001-EP10393 W 20010907

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002019981	ICM	A61K007-48
	ICS	A61K031-00; A61K045-08; A61K047-18; A61P017-00
JP 2004508316	FTERM	4C083/AA121; 4C083/AB171; 4C083/AB431; 4C083/AB441; 4C083/AC172; 4C083/AC301; 4C083/AC442; 4C083/AC482; 4C083/AC531; 4C083/AC581; 4C083/AC582; 4C083/AC712; 4C083/AC782; 4C083/AC901; 4C083/AD091; 4C083/AD092; 4C083/AD261; 4C083/AD411; 4C083/AD412; 4C083/BB45; 4C083/BB48; 4C083/BB51; 4C083/CC02; 4C083/CC25; 4C083/DD15; 4C083/DD17; 4C083/DD21; 4C083/DD23; 4C083/EE12; 4C083/EE13; 4C083/EE42; 4C084/AA01; 4C084/AA03; 4C084/AA20; 4C084/BA01; 4C084/BA07; 4C084/BA23; 4C084/BA37; 4C084/BA44; 4C084/CA59; 4C084/MA02; 4C084/MA16; 4C084/MA35; 4C084/MA43; 4C084/MA52; 4C084/MA63; 4C084/NA10; 4C084/NA14; 4C084/ZA892; 4C084/ZA902; 4C084/ZB112; 4C086/AA01; 4C086/EA20; 4C086/FA02; 4C086/MA02; 4C086/MA04; 4C086/MA10; 4C086/MA16; 4C086/MA35; 4C086/MA43; 4C086/MA52; 4C086/MA63; 4C086/NA10; 4C086/NA14; 4C086/ZA89; 4C086/ZA90; 4C086/ZB11; 4C206/AA01; 4C206/FA51; 4C206/FA55; 4C206/MA02; 4C206/MA04; 4C206/MA29; 4C206/MA36; 4C206/MA55; 4C206/MA63; 4C206/MA72; 4C206/MA83; 4C206/NA10; 4C206/NA14; 4C206/ZA89; 4C206/ZA90; 4C206/ZB11 <--
US 2004052826	ECLA	A61K008/44; A61K008/88; A61K031/00; A61Q019/00 <--
OS	MARPAT 136:236684	
AB	<b>Pharmaceutical</b> and <b>cosmetic</b> compns. comprise a chelating and a sequestering agent, and optionally containing further ingredients. The use of such compns. makes water more compatible with the skin and prevents or treats skin conditions such as eczema, irritation and skin dryness. Thus, a powder formulation contained NaHCO <sub>3</sub> 41.67, citric acid 52.38, sodium poly(aspartic acid) 1.19, iminodisuccinate 3.57, Tapioca starch 0.60, and perfume 0.60%.	
ST	<b>cosmetic</b> chelating sequestering; <b>pharmaceutical</b>	
IT	chelating sequestering Anti-inflammatory agents Antibacterial agents Bath preparations Chelating agents <b>Cosmetics</b> Drug delivery systems <b>Eczema</b> Sequestering agents Surfactants	

- (cosmetic and pharmaceutical compns. containing chelating and sequestering agents)
- IT Bentonite, biological studies  
Polyphosphates  
Polyphosphoric acids  
Silicates, biological studies  
Zeolites (synthetic), biological studies  
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);  
USES (Uses)  
(cosmetic and pharmaceutical compns. containing chelating and sequestering agents)
- IT Skin, disease  
(dry; cosmetic and pharmaceutical compns. containing chelating and sequestering agents)
- IT Embryophyta  
(exts.; cosmetic and pharmaceutical compns. containing chelating and sequestering agents)
- IT Skin, disease  
(irritation; cosmetic and pharmaceutical compns. containing chelating and sequestering agents)
- IT Cosmetics  
(powders; cosmetic and pharmaceutical compns. containing chelating and sequestering agents)
- IT Drug delivery systems  
(tablets; cosmetic and pharmaceutical compns. containing chelating and sequestering agents)
- IT 60-00-4, EDTA, biological studies 60-00-4D, EDTA, salts 67-43-6, DTPA 67-43-6D, salts 77-92-9, Citric acid, biological studies 77-92-9D, Citric acid, salts 79-10-7D, Acrylic acid, polymers, salts 83-86-3, Phytic acid 83-86-3D, Phytic acid, [salts 139-13-9 139-13-9D, salts 139-89-9, Glycine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)-trisodium salt 150-38-9, EDTA trisodium salt 150-39-0, HEDTA 150-39-0D, HEDTA, salts 526-99-8, Galactaric acid 526-99-8D, Galactaric acid, salts 688-57-3D, Ethylenediaminetriacetic acid, N-acyl derivs. 1343-98-2, Silicic acid 1939-36-2 1939-36-2D, salts 2809-21-4, Etidronic acid 2809-21-4D, Etidronic acid, salts 5064-31-3, Trisodium Nitrilotriacetate 5261-23-4 7408-20-0, Iminodisuccinic acid 7408-20-0D, Iminodisuccinic acid, salts 9004-34-6D, Cellulose, derivs. 10343-62-1, Metaphosphoric acid 10343-62-1D, Metaphosphoric acid, salts 13078-36-9, Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]-trisodium salt 13598-36-2, Phosphonic acid 13598-36-2D, Phosphonic acid, salts 25608-40-6, Polyaspartic acid 26063-13-8, Polyaspartic acid 34345-47-6, Polyaspartic acid sodium salt 34503-18-9, Polyaspartic acid, sru, sodium salt 403640-88-0  
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(cosmetic and pharmaceutical compns. containing chelating and sequestering agents)
- IT 7408-20-0, Iminodisuccinic acid  
7408-20-0D, Iminodisuccinic acid, salts  
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(cosmetic and pharmaceutical compns. containing chelating and sequestering agents)
- RN 7408-20-0 HCAPLUS
- CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

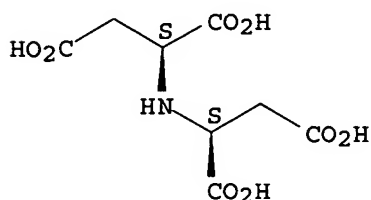
Absolute stereochemistry.



RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:66719 HCAPLUS

DN 136:107268

ED Entered STN: 24 Jan 2002

TI **Cosmetic** and dermatological gels containing  
**iminodisuccinic acid**

IN Lanzendoerfer, Ghita; Untiedt, Sven; Kaden, Waltraud

PA **Beiersdorf A.-G., Germany**

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM A61K007-00

ICS A61K007-48; A61K031-195

CC 62-4 (Essential Oils and **Cosmetics**)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10034102	A1	20020124	DE 2000-10034102	20000713 <--
PRAI	DE 2000-10034102		20000713	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10034102 ✓	ICM	A61K007-00
	ICS	A61K007-48; A61K031-195
DE 10034102	ECLA	A61K008/44; A61K031/195; A61Q001/10; A61Q017/00; A61Q019/00

AB The invention concerns **cosmetic** and dermatol. compns., especially gels that contain **iminodisuccinic acid** or its salts for the treatment of skin irritations. The compns. can contain  $\alpha$ -hydroxycarboxylic acids,  $\alpha$ -ketocarboxylic acids and amino acids. Thus a gel contained (weight/weight)%: PEG-8 5.00; ethanol 10.00; carbomer 0.70; triglyceride, liquid 1.50; glycerin 5.00; panthenol 0.50; tocopherol acetate 0.50; **iminodisuccinic acid** 0.50; perfume, preservatives, dyes, antioxidants, sodium hydroxide q.s.; water to 100.

ST iminodisuccinate **cosmetic** dermatol gel hypersensitive skin

- IT Hydrogels  
(cosmetic and dermatol. gels containing iminodisuccinic acid)
- IT Amino acids, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(cosmetic and dermatol. gels containing iminodisuccinic acid)
- IT Cosmetics  
(eye liners; cosmetic and dermatol. gels containing iminodisuccinic acid)
- IT Drug delivery systems  
(gels, topical; cosmetic and dermatol. gels containing iminodisuccinic acid)
- IT Cosmetics  
(gels; cosmetic and dermatol. gels containing iminodisuccinic acid)
- IT Carboxylic acids, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(hydroxy; cosmetic and dermatol. gels containing iminodisuccinic acid)
- IT Skin, disease  
(irritation; cosmetic and dermatol. gels containing iminodisuccinic acid)
- IT Carboxylic acids, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(oxo; cosmetic and dermatol. gels containing iminodisuccinic acid)
- IT 7408-20-0, Iminodisuccinic acid  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(cosmetic and dermatol. gels containing iminodisuccinic acid)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

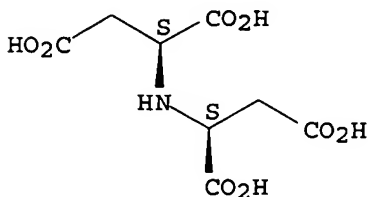
- (1) Anon; JP 06329606 A HCAPLUS
- (2) Anon; JP 06329607 A HCAPLUS
- (3) Anon; DE 19528059 A1 HCAPLUS
- (4) Anon; DE 19822601 A1 HCAPLUS
- (5) Anon; DE 19923838 A1 HCAPLUS
- (6) Anon; DE 19928495 A1 HCAPLUS
- (7) Anon; WO 9845251 A1 HCAPLUS
- (8) Anon; International Cosmetic Ingredient Dictionary and Handbook 2000

- IT 7408-20-0, Iminodisuccinic acid  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(cosmetic and dermatol. gels containing iminodisuccinic acid)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AN 2002:66718 HCAPLUS  
 DN 136:107267  
 ED Entered STN: 24 Jan 2002  
 TI **Cosmetic** and dermatological emulsions containing  
**iminodisuccinic acid**  
 IN Lanzendoerfer, Ghita; Untiedt, Sven; Kaden, Waltraud  
 PA **Beiersdorf A.-G., Germany**  
 SO Ger. Offen., 14 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC ICM A61K007-00  
 ICS A61K007-48; A61K031-195  
 CC 62-4 (Essential Oils and **Cosmetics**)  
 Section cross-reference(s): 63

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10034101	A1	20020124	DE 2000-10034101	20000713 <--
PRAI	DE 2000-10034101		20000713	<--	

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10034101 ✓	ICM	A61K007-00
	ICS	A61K007-48; A61K031-195
DE 10034101	ECLA	A61K008/06; A61K008/44; A61K031/195+A; A61K031/195+M; A61K031/20+M; A61Q001/02; A61Q001/10; A61Q019/00 <--

AB The invention concerns **cosmetic** and dermatol. compns., especially emulsions that contain **iminodisuccinic acid** or its salts for the treatment of skin irritations and to prevent stinging-effect. The compns. can contain  $\alpha$ -hydroxycarboxylic acids,  $\alpha$ -ketocarboxylic acids and amino acids. Thus a W/O emulsion was prepared that included (weight/weight%): PEG-2-hydrated canola oil 4.00; beeswax 3.00; vaseline 4.00; ozokerite 4.00; paraffin oil, subliq. 10.00; glycerin 5.00; octylmethoxycinnamate 2.50; methylbenzylidene camphor 2.50; tocopherolacetate 1.00; magnesium sulfate heptahydrate 0.70; **iminodisuccinic acid** 0.50; perfume, preservatives, sodium hydroxide, dyes, antioxidants q.s.; water to 100.00.

ST iminodisuccinate **cosmetic** dermatol emulsion hypersensitive skin

IT Amino acids, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (**cosmetic** and dermatol. emulsions containing **iminodisuccinic acid**)

IT Drug delivery systems  
 (emulsions, topical; **cosmetic** and dermatol. emulsions containing **iminodisuccinic acid**)

IT **Cosmetics**  
 (emulsions; **cosmetic** and dermatol. emulsions containing **iminodisuccinic acid**)

IT **Cosmetics**  
 (eye liners; **cosmetic** and dermatol. emulsions containing **iminodisuccinic acid**)

IT Carboxylic acids, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (hydroxy; **cosmetic** and dermatol. emulsions containing **iminodisuccinic acid**)

IT **Skin, disease**  
 (irritation; **cosmetic** and dermatol. emulsions containing **iminodisuccinic acid**)

IT Emulsions  
 (oil-in-water; **cosmetic** and dermatol. emulsions containing **iminodisuccinic acid**)

IT Carboxylic acids, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (oxo; **cosmetic** and dermatol. emulsions containing  
**iminodisuccinic acid**)

IT Emulsions  
 (water-in-oil; **cosmetic** and dermatol. emulsions containing  
**iminodisuccinic acid**)

IT 7408-20-0, Iminodisuccinic acid  
 RL: COS (Cosmetic use); BIOL (Biological study); **USES**  
 (Uses)  
 (cosmetic and dermatol. emulsions containing  
**iminodisuccinic acid**)

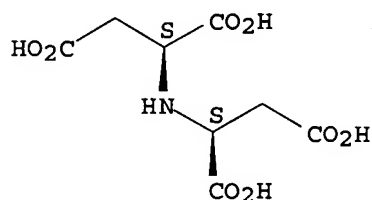
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE

(1) Anon; JP 06329606 A HCAPLUS  
 (2) Anon; JP 06329607 A HCAPLUS  
 (3) Anon; DE 19528059 A1 HCAPLUS  
 (4) Anon; DE 19923838 A1 HCAPLUS  
 (5) Anon; DE 19928495 A1 HCAPLUS  
 (6) Anon; DE 9822601 A1  
 (7) Anon; WO 9845251 A1 HCAPLUS  
 (8) Anon; International Cosmetic Ingredient Dictionary and Handbook 2000

IT 7408-20-0, Iminodisuccinic acid  
 RL: COS (Cosmetic use); BIOL (Biological study); **USES**  
 (Uses)  
 (cosmetic and dermatol. emulsions containing  
**iminodisuccinic acid**)

RN 7408-20-0 HCAPLUS  
 CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2001:661220 HCAPLUS  
 DN 135:215751  
 ED Entered STN: 10 Sep 2001  
 TI Hair relaxer compositions containing complexing agent activators  
 IN Van Nguyen, Nghi; Cannell, David W.  
 PA L'oreal, Fr.  
 SO PCT Int. Appl., 32 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K007-06  
 CC 62-3 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001064171	A2	20010907	WO 2001-US6338	20010228 <--
	WO 2001064171	A3	20020110		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,			



LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,  
 RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,  
 VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 US 6562327 B1 20030513 US 2000-516942 20000301 <--  
 CA 2401009 AA 20010907 CA 2001-2401009 20010228 <--  
 EP 1261312 A2 20021204 EP 2001-916273 20010228 <--  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 BR 2001008907 A 20021224 BR 2001-8907 20010228 <--  
 JP 2003524658 T2 20030819 JP 2001-563069 20010228 <--  
 ZA 2002006840 A 20030404 ZA 2002-6840 20020827 <--  
 PRAI US 2000-516942 A 20000301 <--  
 WO 2001-US6338 W 20010228 <--

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001064171	ICM	A61K007-06
US 6562327	ECLA	A45D007/04; A61K007/09K; A61K007/09 <--
AB	The present invention provides a composition for lanthionizing keratin fibers comprising at least 1 multivalent metal hydroxide and at least 1 complexing agent effective for dissociating one multivalent metal hydroxide in sufficient quantity to effect lanthionization of the keratin fibers. In one embodiment, the complex that is formed between the complexing agent and a metal ion from the multivalent metal hydroxide is soluble in water. thus, a gel was prepared from mineral oil 15.0, petrolatum 5.5, Sr(OH)2 octahydrate 18.6, propylene glycol 3.0, acrylates/Ceteth-20 itaconate copolymer 7.0, and water 50.9%. The relaxer gel (6 g) was mixed with a solution of 1.83 g tetrasodium EDTA in 2 g water and the mixture was applied to kinky hair. The relaxing efficiency of the strontium/EDTA hair relaxer was found to be in excess of 85%.	
ST	hair relaxer complexing agent; hydroxide EDTA hair relaxer	
IT	Ion exchangers (hair relaxer compns. containing complexing agent activators)	
IT	Amino acids, biological studies Crown ethers Hydroxides (inorganic) Silicates, biological studies Sulfonic acids, biological studies Zeolite-group minerals Zeolites (synthetic), biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (hair relaxer compns. containing complexing agent activators)	
IT	Carboxylic acids, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (hydroxy; hair relaxer compns. containing complexing agent activators)	
IT	Hair preparations (straighteners; hair relaxer compns. containing complexing agent activators)	
IT	60-00-4, EDTA, biological studies 67-43-6, Diethylenetriaminepentaacetic acid 77-92-9, Citric acid, biological studies 87-69-4, Tartaric acid, biological studies 93-62-9, N-(2-Hydroxyethyliminodiacetic acid 139-13-9 139-89-9, Trisodium N-(hydroxyethyl)ethylenediaminetriacetate 140-01-2, Pentasodium diethylenetriaminepentaacetate 150-39-0, N-(Hydroxyethyl)ethylenediaminetriacetic acid 1305-62-0, Calcium hydroxide (Ca(OH)2), biological studies 1309-42-8, Magnesium hydroxide 1318-10-1, Analcime 1318-50-9, Epistilbite 1318-63-4, Heulandite 1318-80-5, Laumontite 1318-83-8, Levynite 1318-95-2, Natrolite 1319-20-6, Scolecite 1327-36-2, Aluminosilicate 1763-07-1, Guanidine	

phosphate 2235-43-0 5064-31-3, Trisodium Nitrilotriacetate  
 6419-19-8, Aminotrimethylenephosphonic acid 6834-92-0, Sodium  
 metasilicate 7408-20-0, Iminodisuccinic acid  
 7601-54-9, Trisodium phosphate 7778-53-2, Tripotassium phosphate  
 10006-28-7, Silicic acid (H<sub>2</sub>SiO<sub>3</sub>), dipotassium salt 12043-66-2, Mesolite  
 12173-28-3, Faujasite 12173-98-7, Mordenite 12174-18-4, Phillipsite  
 12197-41-0, Brewsterite 12251-23-9, Gismondine 12251-32-0, Chabazite  
 12251-35-3, Gmelinite 12251-39-7, Harmotome 12252-36-7, Edingtonite  
 12399-54-1, Thomsonite 12446-28-5, Stilbite 17194-00-2, Barium  
 hydroxide (Ba(OH)<sub>2</sub>) 18480-07-4, Strontium hydroxide (Sr(OH)<sub>2</sub>)  
 18933-05-6, Manganese hydroxide (Mn(OH)<sub>2</sub>) 20427-58-1, Zinc hydroxide  
 (Zn(OH)<sub>2</sub>) 20427-59-2, Copper hydroxide (Cu(OH)<sub>2</sub>) 21041-93-0, Cobalt  
 hydroxide (Co(OH)<sub>2</sub>) 21645-51-2, Aluminum hydroxide (Al(OH)<sub>3</sub>), biological  
 studies 120070-48-6 126853-99-4, Molybdenum hydroxide 148124-41-8  
 148124-42-9

RL: BUU (Biological use, unclassified); BIOL (Biological study);  
 USES (Uses)

(hair relaxer compns. containing complexing agent activators)

IT 64-02-8, Tetrasodium EDTA 1311-10-0, Strontium hydroxide octahydrate  
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological  
 study); RACT (Reactant or reagent); USES (Uses)

(hair relaxer compns. containing complexing agent activators)

IT 7408-20-0, Iminodisuccinic acid

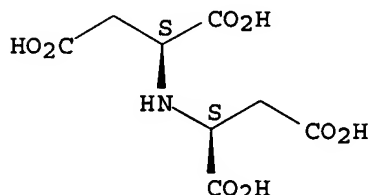
RL: BUU (Biological use, unclassified); BIOL (Biological study);  
 USES (Uses)

(hair relaxer compns. containing complexing agent activators)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 24 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:434795 HCAPLUS

DN 135:30287

ED Entered STN: 15 Jun 2001

TI Stable bactericidal and fungicidal liquid preparations for industrial  
 products

IN Beilfuss, Wolfgang; Gradtke, Ralf

PA Air Liquide Sante (International), Fr.

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A01N043-80

ICS A01N043-80; A01N059-00; A01N043-76; A01N043-64; A01N043-40;  
 A01N025-22

CC 5-2 (Agrochemical Bioregulators)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001041570	A2	20010614	WO 2000-IB1823	20001206 <--
	WO 2001041570	A3	20011227		
	W: BR, CN, ID, JP, KR				

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
PT, SE, TR

DE 19961621	A1	20010705	DE 1999-19961621	19991213 <--
DE 19961621	C2	20021114		
BR 2000016018	A	20020723	BR 2000-16018	20001206 <--
EP 1239731	A2	20020918	EP 2000-978990	20001206 <--
EP 1239731	B1	20041027		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY, TR

JP 2003515614	T2	20030507	JP 2001-542755	20001206 <--
US 2001021711	A1	20010913	US 2000-734646	20001213 <--
PRAI DE 1999-19961621	A	19991213	<--	
WO 2000-IB1823	W	20001206	<--	

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
WO 2001041570	ICM	A01N043-80	
	ICS	A01N043-80; A01N059-00; A01N043-76; A01N043-64; A01N043-40; A01N025-22	
DE 19961621	ECLA	A01N043/80+M	<--
US 2001021711	ECLA	A01N043/80+M	<--
AB		Stable microbicidal compns. for industrial products comprise (a) at least one bactericidal N-formal, which is a condensation product of formaldehyde and amines, preferably alkanolamines, (b) at least one isothiazolone derivative fungicide, and (c) at least one stabilizer, which also has microbicidal action.	
ST		antibacterial formal fungicide stabilizer microbicide disinfectant	
IT		Alcohols, biological studies	
		RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)	
		(amino, condensation products with formaldehyde; in stable microbicidal liquid prepns. for industrial products)	
IT		Phosphates, uses	
		Polyphosphates	
		RL: MOA (Modifier or additive use); USES (Uses)	
		(complexing agent in stable microbicidal liquid prepns. for industrial products)	
IT		Carboxylic acids, biological studies	
		RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)	
		(derivs.; corrosion-protective agent in stable microbicidal liquid prepns. for industrial products)	
IT		Complexing agents	
		Corrosion inhibitors	
		Solvents	
		(in stable microbicidal liquid prepns. for industrial products)	
IT		Preservatives	
		(industrial; stable bactericidal and fungicidal liquid prepns. for industrial products containing N-formal, fungicide, and stabilizer)	
IT		Carboxylic acids, uses	
		RL: MOA (Modifier or additive use); USES (Uses)	
		(polycarboxylic; complexing agent in stable microbicidal liquid prepns. for industrial products)	
IT		Seed	
		(stable bactericidal and fungicidal liquid prepns. containing N-formal, fungicide, and stabilizer for treatment of)	
IT		Antibacterial agents	
		Antimicrobial agents	
		Disinfectants	
		Fungicides	
		Lubricating oil additives	
		Pesticide formulations	
		<b>Stabilizing agents</b>	

## Wood preservatives

(stable bactericidal and fungicidal liquid preps. for industrial products containing N-formal, fungicide, and stabilizer)

- IT 60-00-4, Ethylenediaminetetraacetic acid, uses 67-43-6, Diethylenetriaminepentaacetic acid 139-13-9 150-25-4, N,N-Bis(2-hydroxyethyl)glycine 150-39-0, Hydroxyethylethylenediaminetriacetic acid 526-95-4, Gluconic acid 1429-50-1, Ethylenediaminetetramethylenephosphonic acid 2809-21-4, Hydroxyethanediphosphonic acid 6419-19-8 7408-20-0, **Iminodisuccinic acid** 15827-60-8, Diethylenetriaminepentamethylenephosphonic acid 20846-91-7 25608-40-6, Polyaspartic acid 29578-05-0, Methylglycinediacetic acid 34747-66-5  
 RL: MOA (Modifier or additive use); USES (Uses)

(complexing agent in stable microbicidal liquid preps. for industrial products)

- IT 95-14-7, 1H-Benzotriazole 29385-43-1, Methylbenzotriazole 37306-44-8D, Triazole, derivs. 37971-36-1, Phosphonobutanetricarboxylic acid 42763-46-2 42763-47-3 80584-90-3 88477-37-6  
 RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(corrosion-protective agent in stable microbicidal liquid preps. for industrial products)

- IT 1003-07-2D, 3(2H)-Isothiazolone, derivative 2634-33-5, Benzisothiazolone 2682-20-4, 2-Methyl-4-isothiazolin-3-one 26172-55-4, 5-Chloro-2-methyl-4-isothiazolin-3-one 26530-20-1 55965-84-9, kathon 886  
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(fungicide in stable microbicidal liquid preps. for industrial products)

- IT 50-00-0D, Formaldehyde, condensation products with alkanolamines, biological studies  
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(in stable microbicidal liquid preps. for industrial products)

- IT 57-55-6, 1,2-Propylene glycol, uses 107-98-2, 1-Methoxy-2-propanol 112-34-5, Diethylene glycol butyl ether 122-99-6, Phenoxyethanol 25265-71-8, Dipropylene glycol 41593-38-8, Phenoxypropanol  
 RL: MOA (Modifier or additive use); USES (Uses)

(solvent in stable microbicidal liquid preps. for industrial products)

- IT 149-30-4, 2-Mercaptobenzothiazole 1121-31-9, 2-Mercaptopyridine N-oxide 1121-31-9D, 2-Mercaptopyridine N-oxide, metal salt complexes 3696-28-4, 2,2'-Dithiobis(pyridine N-oxide) 3811-73-2, 2-Mercaptopyridine N-oxide, sodium salt 7789-38-0, Sodium bromate 13463-41-7 21564-17-0, 2-Thiocyanomethylthiobenzothiazole 344352-75-6  
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(stabilizer with microbicidal action in stable microbicidal liquid preps. for industrial products)

- IT 4719-04-4 66204-44-2  
 RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(stable bactericidal and fungicidal liquid preps. containing)

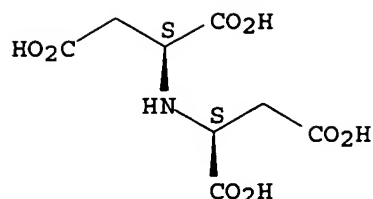
- IT 7408-20-0, **Iminodisuccinic acid**  
 RL: MOA (Modifier or additive use); USES (Uses)

(complexing agent in stable microbicidal liquid preps. for industrial products)

RN 7408-20-0 · HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2001:114958 HCAPLUS  
 DN 134:168319  
 ED Entered STN: 15 Feb 2001  
 TI Periodic structures comprising lipids, polyelectrolytes, and  
 structure-inducing soluble oligovalent linkers, and biological use thereof  
 IN Cevc, Gregor; Huebner, Stefan  
 PA Idea Ag, Germany  
 SO PCT Int. Appl., 33 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K009-127  
 CC 63-5 (Pharmaceuticals)  
 Section cross-reference(s): 3, 15

## FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001010413	A2	20010215	WO 2000-EP7546	20000803 <--
	WO 2001010413	A3	20010816		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2377422	AA	20010215	CA 2000-2377422	20000803 <--
	JP 2003506398	T2	20030218	JP 2001-514933	20000803 <--
PRAI	DE 1999-19936665	A	19990804	<--	
	WO 2000-EP7546	W	20000803	<--	

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 2001010413	ICM	A61K009-127
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AB This invention describes a method for preparing **pharmaceutically** usable compns. comprising periodic structures consisting of polyelectrolytes sandwiched between lipid aggregates having at least one charged component which is characterized in that a suspension of non-periodic, preferably mono- or bilayer like, lipid aggregates, a solution of polyelectrolyte mols., and a solution of oligovalent linkers are sep. made and then mixed to form said periodic structures, the simultaneous presence of said components catalyzing the formation of controlling the rate of formation of said periodic structures comprising at least one layer of lipid component associated with a layer of polyelectrolyte mols.

ST liposome periodic structure polyelectrolyte lipid sandwich

IT Freezing

(-thawing; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT Antisense RNA

## Ligands

## Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(DNA encoding; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Eye, disease

## Graves' disease

(Graves' ophthalmopathy; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Blood vessel, disease

(Kawasaki; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Lipids, biological studies

RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(aggregates; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Engineering

(bioengineering; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Blood

## Connective tissue

(disease; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Brain, disease

(edema; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Kidney, disease

## Liver, disease

(failure; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Blood vessel, neoplasm

(hemangioma; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Anemia (disease)

(hemolytic; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Adrenal gland, disease

(hyperplasia, congenital; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Human herpesvirus

(infection; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Intestine, disease

(inflammatory; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Adrenal gland

(insufficiency; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Skin, disease

(lichen planus; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Aggregates

(lipid; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

## IT Drug delivery systems

(liposomes; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

- IT    Macroglobulins
  - RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
  - BIOL (Biological study); OCCU (Occurrence)
  - (macroglobulinemia; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)
- IT    Fragmentation reaction
  - (mech.; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)
- IT    Muscle, disease
  - (myalgia; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)
- IT    Nerve, disease
  - (neuropathy; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)
- IT    Pancreas, disease
  - (pancreatitis; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)
- IT    Anti-inflammatory agents
  - Antiarthritics
  - Anticonvulsants
  - Behcet's syndrome**
  - Bone, disease
  - Cataract
  - Chelating agents
  - Drug delivery systems
  - Eosinophilia
  - Evaporation
  - Filtration
  - Freeze drying
  - Gene therapy
  - Genetic vectors
  - Homogenization
  - Infection
  - Lupus erythematosus**
  - Myasthenia gravis
  - Osteoarthritis
  - Pain
  - Particle size distribution
  - Periodic structures
  - Polyelectrolytes
  - Pore size distribution
  - Psoriasis**
  - Skin, disease**
  - Skin, disease**
    - (periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)
- IT    DNA
  - RNA
  - RL: PEP (Physical, engineering or chemical process); PRP (Properties);
  - PROC (Process)
    - (periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)
- IT    Antisense oligonucleotides
  - Quaternary ammonium compounds, biological studies
  - RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
    - (periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)
- IT    Cerebrosides
  - Gangliosides
  - Glycerides, biological studies
  - Glycerophospholipids

Glycolipids  
 Glycosphingolipids  
 Isoprenoids  
 Lipids, biological studies  
 Phosphatidic acids  
 Phosphatidylcholines, biological studies  
 Phosphatidylethanolamines, biological studies  
 Phosphatidylglycerols  
 Phosphatidylinositols  
 Phosphatidylserines  
 Sphingolipids  
 Sphingomyelins  
 Steroids, biological studies  
 Sterols  
 Sulfatides  
 Transgene

RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT Sphingolipids

RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (phosphosphingolipids; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT Ceramides

RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (polyhexosides; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT Muscle, disease

(polymyositis; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT Mixing

(stirring; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT Purpura (disease)

(thrombocytopenic; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT Sonication

(ultrasonication; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT Immunization

(vaccination; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT 56-84-8D, Aspartic acid, derivs. 60-00-4, Edta, uses 67-42-5, Egta

138-14-7, Deferoxamine mesylate 142-73-4, Iminodiacetic acid

142-73-4D, Iminodiacetic acid, alkyl derivs. 148-24-3,

8-Hydroxyquinoline, uses 499-83-2, Dipicolinic acid 1077-28-7,

Thioctic acid 2809-21-4, Hedp 4076-02-2, Dmps 5657-17-0, Edda

6483-22-3 7408-20-0, Iminodisuccinic acid

20846-91-7, Ethylenediamine-N,N'-disuccinic acid 37971-36-1,

2-Phosphonobutane-1,2,4-tricarboxylic acid 206053-39-6

RL: NUU (Other use, unclassified); USES (Uses)

(chelating agent; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT 7440-70-2, Calcium, biological studies

RL: BOC (Biological occurrence); BSU (Biological study, unclassified);



BIOL (Biological study); OCCU (Occurrence)

(hypercalcemia; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT 54-85-3, Isonicotinic acid hydrazide 57-56-7, Semicarbazide 60-35-5, Acetamide, biological studies 67-62-9, Methoxyamine 71-44-3, Spermine 74-89-5, Methylamine, biological studies 75-04-7, Ethylamine, biological studies 75-50-3, Trimethylamine, biological studies 79-05-0, Propionamide 107-10-8, n-Propylamine, biological studies 107-15-3, Ethylenediamine, biological studies 109-73-9, n-Butylamine, biological studies 109-76-2, 1,3-Diaminopropane 109-85-3, 2-Methoxyethylamine 109-89-7, Diethylamine, biological studies 110-60-1, Putrescine 110-76-9, 2-Ethoxyethylamine 121-44-8, Triethylamine, biological studies 124-20-9, Spermidine 124-40-3, Dimethylamine, biological studies 141-43-5, Ethanolamine, biological studies 143-19-1, Sodium oleate 302-01-2, Hydrazine, biological studies 302-95-4, Sodium deoxycholate 462-94-2, Cadaverine 590-88-5, 1,3-Diaminobutane 629-25-4, Sodium laurate 822-12-8, Sodium myristate 822-17-3, Sodium linoleate 3282-73-3, DDAB 16409-34-0, Sodium glycodeoxycholate 18175-45-6, Sodium elaidate 104162-48-3, Dotma 124050-77-7 137056-72-5, Dc-chol 144189-73-1, Dotap 153312-64-2, Dmrie 168479-03-6, DOSPA 169619-96-9, Dotim

RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT 7408-20-0, Iminodisuccinic acid

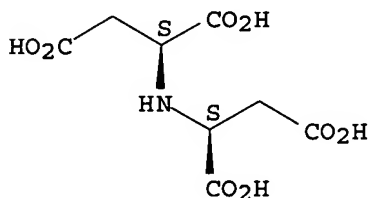
RL: NUU (Other use, unclassified); USES (Uses)

(chelating agent; periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 26 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:101266 HCAPLUS

DN 134:149359

ED Entered STN: 09 Feb 2001

TI Removal of pigment-containing residues in **pharmaceutical or cosmetics** industries

IN Bragulla, Siegfried; Serve, Wilfried

PA Henkel Ecolab GmbH & Co. Ohg, Germany

SO PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM C11D003-37

ICS C11D003-33; C11D003-20

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 1

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

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PI  WO 2001009275      A1    20010208      WO 2000-EP7051      20000722 <--
      W: AU, CA, JP, PL, US
      RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
        PT, SE
      DE 19936179      A1    20010208      DE 1999-19936179      19990731 <--
      EP 1200544      A1    20020502      EP 2000-953082      20000722 <--
      R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
        IE, FI, CY
PRAI DE 1999-19936179  A     19990731 <--
      WO 2000-EP7051      W     20000722 <--

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## CLASS

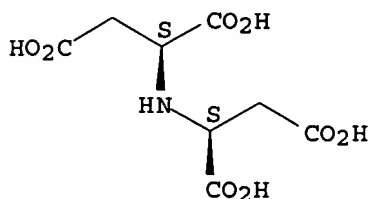
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001009275	ICM	C11D003-37
	ICS	C11D003-33; C11D003-20
DE 19936179	ECLA	C11D003/20E5; C11D003/33; C11D003/37B8
AB		The pigment-containing residues which arise during the production or filling of <b>pharmaceutical</b> or <b>cosmetic</b> preps. are removed by use of compns. based on $\geq 1$ constituents with complex-forming properties selected from amino carboxylic acids, poly(amino acids), P-free carboxylic acids and their salts. A typical cleaner contained NaOH 25, N(CH <sub>2</sub> CO <sub>2</sub> H) <sub>3</sub> 4, gluconic acid 5, Na hydroxyethanediphosphonate 2.5, ethoxylated-propoxylated fatty alcs. 15, alkyl polyglycoside 5% and H <sub>2</sub> O balance to 100.
ST		cleaning agent pigment residue removal <b>pharmaceutical cosmetics</b> industry; nitrilotriacetic acid complexing agent pigment residue removal detergent; gluconic acid complexing agent pigment residue removal detergent
IT		Detergents (cleaning composition; removal of pigment-containing residues in <b>pharmaceutical</b> or <b>cosmetics</b> industries)
IT		Carboxylic acids, uses RL: NUU (Other use, unclassified); USES (Uses) (polycarboxylic, complexing agents; removal of pigment-containing residues in <b>pharmaceutical</b> or <b>cosmetics</b> industries using detergents containing)
IT		Pigments, nonbiological (removal of pigment-containing residues in <b>pharmaceutical</b> or <b>cosmetics</b> industries)
IT		Complexing agents (removal of pigment-containing residues in <b>pharmaceutical</b> or <b>cosmetics</b> industries using detergents containing)
IT		60-00-4, EDTA, uses 77-92-9, Citric acid, uses 139-13-9, Nitrilotriacetic acid 526-95-4, Gluconic acid 7408-20-0, <b>Iminodisuccinic acid</b> 29578-05-0, Methylglycinediacetic acid 31586-29-5D, Polysuccinimide, hydrolyzed 58976-65-1, N,N-Bis(carboxymethyl) L-glutamic acid 167613-87-8, L-Serine-N,N-di(acetic acid) RL: NUU (Other use, unclassified); USES (Uses) (complexing agent; removal of pigment-containing residues in <b>pharmaceutical</b> or <b>cosmetics</b> industries using detergents containing)
RE.CNT	5	THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE		(1) Anon; PATENT ABSTRACTS OF JAPAN 1999, V1999(13) (2) Basf Ag; DE 4310995 A 1994 HCAPLUS (3) Basf Ag; DE 19743434 A 1999 HCAPLUS (4) Neos Co Ltd; JP 11217592 A 1999 HCAPLUS (5) Showa Denko Kk; EP 0913461 A 1999 HCAPLUS
IT		7408-20-0, <b>Iminodisuccinic acid</b> RL: NUU (Other use, unclassified); USES (Uses) (complexing agent; removal of pigment-containing residues in

pharmaceutical or cosmetics industries using  
detergents containing)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2000:824375 HCAPLUS  
DN 134:6160  
ED Entered STN: 24 Nov 2000  
TI Storage-stable, rinse-added fabric softening compositions  
IN Grainger, David Stephen; Jansen, Frans Jos  
PA Unilever PLC, UK; Unilever NV; Hindustan Lever Ltd.  
SO PCT Int. Appl., 49 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM C11D001-66  
CC 46-5 (Surface Active Agents and Detergents)  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000070004	A1	20001123	WO 2000-GB1699	20000503 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2367033	AA	20001123	CA 2000-2367033	20000503 <--
EP 1179037	A1	20020213	EP 2000-929672	20000503 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000010574	A	20020219	BR 2000-10574	20000503 <--
TR 200103291	T2	20020422	TR 2001-200103291	20000503 <--
JP 2002544406	T2	20021224	JP 2000-618411	20000503 <--
AU 768506	B2	20031211	AU 2000-47679	20000503 <--
RU 2227804	C2	20040427	RU 2001-133737	20000503 <--
ZA 2001007246	A	20020902	ZA 2001-7246	20010831 <--
PRAI GB 1999-11434	A	19990517	<--	
WO 2000-GB1699	W	20000503	<--	

# CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000070004	ICM	C11D001-66

OS MARPAT 134:6160

AB A title composition that provides good softening of the fabric without detriment to the fabric absorbency and does not develop malodor upon manufacture, storage or use, comprises (i) cyclic polyol esters or ethers (CPE)

or reduced saccharide esters or ethers (RSE), (ii) deposition aids, e.g., surfactants, and (iii)  $\geq 1$  antioxidants acting as initiation inhibitors (inducing peroxide decomposition) or propagation inhibitors (e.g., hindered phenols). For example, a softener composition which gave good malodor suppression over 4-wk testing period with storage at 45° was prepared by mixing 0.5% (based on composition) cetyltrimethylammonium chloride with H<sub>2</sub>O and adding 4.5% sucrose pentaoleate (Ryoto O-170) and 0.01% **iminodisuccinic acid** Na salt as initiation inhibitor.

The invention also provides a method of reducing malodor in a composition comprising a CPE or RSE as defined above by the addition of  $\geq 1$  antioxidant.

ST fabric softener storage malodor suppression; cetyltrimethylammonium chloride fabric softener storage malodor suppression; sucrose pentaoleate fabric softener malodor suppression; **iminodisuccinic acid** sodium fabric softener malodor suppression

IT Surfactants

(anionic, deposition aids; storage-stable fabric softening composition containing cyclic polyol derivative or reduced saccharide and antioxidants

and)

IT Quaternary ammonium compounds, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(bis(hydrogenated tallow alkyl)dimethyl, chlorides, Arquad 2HT; storage-stable fabric softening composition containing cyclic polyol

derivative or

reduced saccharide and deposition aid and antioxidant)

IT Surfactants

(cationic, deposition aids; storage-stable fabric softening composition containing cyclic polyol derivative or reduced saccharide and antioxidants

and)

IT Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(coco alkyl ethers; storage-stable fabric softening composition containing cyclic polyol derivative or reduced saccharide and deposition aid and antioxidant)

IT Surfactants

(nonionic, deposition aids; storage-stable fabric softening composition containing cyclic polyol derivative or reduced saccharide and antioxidants

and)

IT **Antioxidants**

(storage-stable fabric softening composition containing cyclic polyol derivative or

reduced saccharide and deposition aid and)

IT Fabric softeners

(storage-stable fabric softening composition containing cyclic polyol derivative or

reduced saccharide and deposition aid and antioxidant)

IT Fatty acids, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(storage-stable fabric softening composition containing cyclic polyol derivative or

reduced saccharide and deposition aid and antioxidant)

IT Odor and Odorous substances

(suppression; storage-stable fabric softening composition containing cyclic polyol derivative or reduced saccharide and deposition aid and antioxidant)

IT 112-02-7, Cetyltrimethylammonium chloride

RL: TEM (Technical or engineered material use); USES (Uses)

(25% solution; storage-stable fabric softening composition containing cyclic polyol

derivative or reduced saccharide and deposition aid and antioxidant)

IT 67-43-6 22042-96-2, Dequest 2066

RL: TEM (Technical or engineered material use); USES (Uses)

(initiation inhibitor; storage-stable fabric softening composition

containing

cyclic polyol derivative or reduced saccharide and deposition aid and antioxidant)

IT 1709-70-2, Irganox 1330 6683-19-8, Irganox 1010

RL: TEM (Technical or engineered material use); USES (Uses)

(propagation inhibitor; storage-stable fabric softening composition containing

cyclic polyol derivative or reduced saccharide and deposition aid and antioxidant)

IT 60-00-4, EDTA, uses 20846-91-7, Ethylenediamine-N,N'-disuccinic acid

25322-68-3D, Polyethylene glycol, coco alkyl ethers 37406-24-9

52683-61-1, Ryoto Sugar Ester O-170 53694-17-0, Floc Aid 34

85480-89-3, Dequest 2047 115381-66-3, Sucrose tetraoleate 115536-98-6,

Ryoto Sugar Ester ER-190 169313-31-9, DEEDMAC 208667-46-3, Rewoquat

WE18 240811-92-1, Softgel BDA 287924-66-7, Sucrose tetraerucate

RL: TEM (Technical or engineered material use); USES

(Uses)

(storage-stable fabric softening composition containing cyclic polyol derivative or

reduced saccharide and deposition aid and antioxidant)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; PATENT ABSTRACTS OF JAPAN 1996, V1996(10)

(2) Colgate Palmolive Co; EP 0325184 A 1989 HCAPLUS

(3) Colgate Palmolive Co; EP 0530958 A 1993 HCAPLUS

(4) Henkel Kgaa; WO 9615213 A 1996 HCAPLUS

(5) Kao Corp; JP 08158258 A 1996 HCAPLUS

(6) Procter & Gamble; WO 9603492 A 1996

(7) Unilever; WO 9816538 A 1998 HCAPLUS

IT 37406-24-9

RL: TEM (Technical or engineered material use); USES

(Uses)

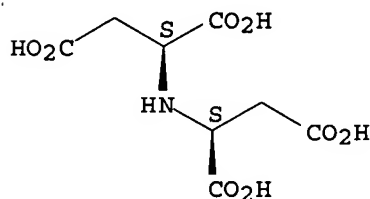
(storage-stable fabric softening composition containing cyclic polyol derivative or

reduced saccharide and deposition aid and antioxidant)

RN 37406-24-9 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 4 Na

L41 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1994:273564 HCAPLUS

DN 120:273564

ED Entered STN: 28 May 1994

TI Discoloration inhibitors for surfactant solutions contaminated by iron

IN Blum, Helmut; Hemmann, Siglinde; Hensen, Hermann; Seipel, Werner

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent  
 LA German  
 IC ICM C11D003-33  
 ICS C09K015-20; C07C229-04  
 ICA B01F017-00; A61K007-06; A61K007-48; G01N021-77  
 ICI C11D003-33, C11D001-22, C11D001-14, C11D001-29, C11D001-28, C11D001-06,  
 C11D001-34, C11D001-12, C11D001-72, C11D001-66, C11D001-90, C11D001-88,  
 C11D001-92  
 CC 46-3 (Surface Active Agents and Detergents)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4216363	A1	19931125	DE 1992-4216363	19920518 <--
	WO 9323515	A1	19931125	WO 1993-EP1149	19930511 <--
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 641379	A1	19950308	EP 1993-912702	19930511 <--
	R: BE, DE, ES, FR, GB, IT				
	JP 07506762	T2	19950727	JP 1993-519859	19930511 <--
PRAI	DE 1992-4216363	A	19920518	<--	
	WO 1993-EP1149	W	19930511	<--	

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 4216363	ICM	C11D003-33
	ICS	C09K015-20; C07C229-04
	ICA	B01F017-00; A61K007-06; A61K007-48; G01N021-77
	ICI	C11D003-33, C11D001-22, C11D001-14, C11D001-29, C11D001-28, C11D001-06, C11D001-34, C11D001-12, C11D001-72, C11D001-66, C11D001-90, C11D001-88, C11D001-92

AB The title inhibitors, useful in anionic, nonionic, and amphoteric surfactant solns. and showing good biodegradability, comprise sequestering agents HO<sub>2</sub>C(CH<sub>2</sub>)<sub>n</sub>CHR<sub>1</sub>NR<sub>2</sub>CHR<sub>3</sub>(CH<sub>2</sub>)<sub>m</sub>R<sub>4</sub> [R<sub>1</sub>, R<sub>3</sub> = H, CO<sub>2</sub>H; R<sub>2</sub> = H, CH<sub>2</sub>CO<sub>2</sub>H; R<sub>4</sub> = CO<sub>2</sub>H, OH, CH(OH)CO<sub>2</sub>H, [CH(OH)]<sub>5</sub>H; n, m = 0-1]. A 26.5% aqueous alkyl ether sulfate (Texapon N) solution (pH 7-7.5) containing 10 ppm Fe<sup>3+</sup> and 150

ppm

HO<sub>2</sub>CCH(OH)CH(CO<sub>2</sub>H)NHCH<sub>2</sub>CO<sub>2</sub>H (I) showed yellowness index (Lovibond) 0.1 after 3 mo. of storage, vs. 1.0 without I.

ST carboxylic sequestrant discoloration inhibitor surfactant; amino acid discoloration inhibitor surfactant; iron sequestrant discoloration inhibitor surfactant; glycine carboxy discoloration inhibitor surfactant; sulfate alkyl ether discoloration inhibitor; ethoxylate sulfate discoloration inhibitor; biodegrdn discoloration inhibitor surfactant

IT Surfactants

(discoloration inhibitors for aqueous solns. of, during storage, sequestrants as)

IT Carboxylic acids, uses

RL: USES (Uses)

(discoloration inhibitors, for aqueous surfactant solns. during storage)

IT Biodegradable materials

(sequestrants, for inhibiting discoloration of aqueous surfactant solns.)

IT Discoloration prevention

(agents, sequestrants, for aqueous surfactant solns. during storage)

IT 93-62-9, N-(2-Hydroxyethyl)iminodiacetic acid 139-13-9, Nitrilotriacetic acid 6245-75-6, 3-[Bis(carboxymethyl)amino]propionic acid

7408-20-0, N-(1,2-Dicarboxyethyl)aspartic

acid 41035-84-1, N-(Carboxymethyl)aminosuccinic acid

119710-97-3, N,N-Bis(carboxymethyl)isoserine 141656-03-3,

N-(1,2-Dicarboxy-2-hydroxyethyl)aspartic acid 145927-62-4,

N-(1,2-Dicarboxy-2-hydroxyethyl)glycine 154914-48-4,

N,N-Bis(carboxymethyl)glucamine

RL: USES (Uses)

(discoloration inhibitors, for aqueous surfactant solns. during storage)

IT 7408-20-0, N-(1,2-Dicarboxyethyl)aspartic acid

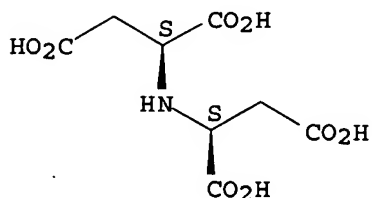
RL: USES (Uses)

(discoloration inhibitors, for aqueous surfactant solns. during storage)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=&gt; =&gt; =&gt; d l36 all hitstr tot

L36 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:462439 HCAPLUS

DN 137:36933

ED Entered STN: 20 Jun 2002

TI Methods, compositions and articles for control of malodor produced by urea-containing body fluids

IN Stoddart, Barry; Narinx, Emmanuel Pierre Jacques

PA The Procter &amp; Gamble Company, USA

SO Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM A01K001-015

ICS A61L009-01; A61L015-46

CC 59-6 (Air Pollution and Industrial Hygiene)

Section cross-reference(s): 62, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1214878	A1	20020619	EP 2000-870301	20001215 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	CA 2428175	AA	20020620	CA 2001-2428175	20011213 <--
	WO 2002047472	A1	20020620	WO 2001-US48942	20011213 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002029094	A5	20020624	AU 2002-29094	20011213 <--
	JP 2004515292	T2	20040527	JP 2002-549061	20011213 <--
	US 2003220211	A1	20031127	US 2003-459866	20030612 <--
PRAI	EP 2000-870301	A	20001215	<--	
	WO 2001-US48942	W	20011213		

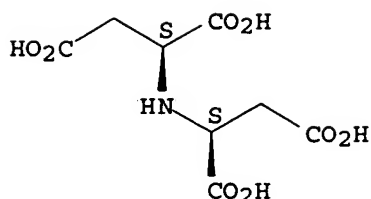
## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
EP 1214878	ICM	A01K001-015	
	ICS	A61L009-01; A61L015-46	
EP 1214878	ECLA	A61L009/01; A61L015/46	<--
JP 2004515292	FTERM	2B101/AA13; 2B101/AA20; 2B101/FB04; 2B101/GB05; 3B029/BD22; 4C003/HA01; 4C080/AA03; 4C080/BB04; 4C080/CC08; 4C080/HH09; 4C080/JJ05; 4C080/KK08; 4C080/LL02; 4C080/MM40; 4C098/AA09; 4C098/CC01; 4C098/CC18; 4C098/CC19; 4C098/DD03; 4C098/DD05; 4C098/DD06; 4C098/DD21; 4H003/BA12; 4H003/DA01; 4H003/DA06; 4H003/EB13; 4H003/EB15; 4H003/ED02; 4H003/FA27; 4H061/AA01; 4H061/CC35; 4H061/DD20; 4H061/EE11; 4H061/EE15; 4H061/EE16; 4H061/EE17; 4H061/EE25; 4H061/EE27; 4H061/GG34; 4H061/HH28; 4H061/HH42	<--
AB	Disclosed are methods, compns. and articles suitable for controlling the undesirable ammonia odor produced by excreted or secreted body fluids, e.g., urine and/or sweat, and residues thereof. Such methods, compns. and articles utilize certain urease inhibitor complexes formed from a divalent metal ion and a polyanionic, preferably amine-based, chelating agent to prevent or minimize the urease-promoted degradation of urea (found in the body fluids) to malodorous ammonia. Applications of these urease inhibitor complexes include use in deodorizing sprays, pet litter, animal waste-based fertilizer, fabrics, or other absorbent articles in contact with bodily fluids, such as a sweatband, sock, underwear, bed sheet, mattress cover, pillow case, hand or bath towel, underarm pad, surgical gown or drape, wiping cloth, carpet, brush, mop, or paper towel.		
ST	odor control ammonia perspiration urine urease inhibitor complex CuHEDTA; ammonia odor control compn copper hydroxyethylethylenediamine triacetic acid		
IT	Air purification (deodorization; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)		
IT	Surfactants (deterasive; odor control composition component; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)		
IT	Heavy metals RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (divalent metal ions; urease inhibitor complex component; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)		
IT	Gossypium hirsutum Wool (grafting of urease inhibitor compound onto; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)		
IT	Carriers (liquid or, preferably granular, solid; odor control composition component; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)		
IT	Detergent builders (odor control composition component; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)		
IT	Heavy metals RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (toxicity, divalent metal ions; urease inhibitor complex component;		



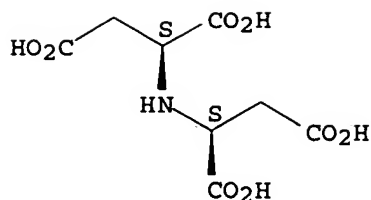
- urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)
- IT 79-08-3, Bromoacetic acid 107-15-3, Ethylenediamine, reactions  
2425-79-8, 1,4-Butanediol diglycidyl ether  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
(for grafting urease inhibitor compound onto cotton or wool; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)
- IT 9002-13-5, Urease  
RL: CPS (Chemical process); MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PROC (Process)  
(inhibition of; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)
- IT 57-13-6, Urea, miscellaneous  
RL: MSC (Miscellaneous)  
(prevention of enzymic degradation by urease; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)
- IT 7664-41-7, Ammonia, miscellaneous  
RL: MSC (Miscellaneous)  
(prevention of formation of; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)
- IT 107-15-3D, Ethylenediamine, substituted, with general formula  $R(CH_2COOH)N-(CH_2)_2-N-(CH_2COOH)_2$ , wherein R is an organic moiety which does not form a coordination link with the heavy metal ion it is to be chelated with 150-39-0, n-Hydroxyethyl-ethylenediamine triacetic acid  
7408-20-0, Iminodisuccinic acid 14701-22-5, reactions 15158-11-9, Cupric ion, reactions 15438-31-0, Ferrous ion, reactions 22541-53-3, reactions 23713-49-7, Zinc ion, reactions  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
(urease inhibitor complex component; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)
- IT 139-13-9  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
(urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)
- RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
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(3) Lion Corp; DE 3642564 A 1987 HCAPLUS  
(4) Noel, H; US 5547676 A 1996 HCAPLUS  
(5) Procter & Gamble; EP 0123489 A 1984 HCAPLUS
- IT 7408-20-0, Iminodisuccinic acid  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
(urease inhibitor complex component; urease inhibitor complexes to prevent enzymic degradation of urea in body fluids into odorous ammonia and its use in odor control compns.)
- RN 7408-20-0 HCAPLUS  
CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



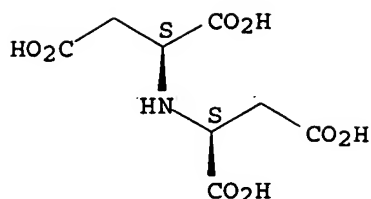
L36 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2002:14831 HCAPLUS  
 DN 136:59370  
 ED Entered STN: 08 Jan 2002  
 TI Stability of Zr(IV) and Hf(IV) compounds with **iminodisuccinic acid**  
 AU Lytkin, A. I.; Chernyavskaya, N. V.; Rivera, F. A.; Nikol'skii, V. M.  
 CS Ivanov. Gos. Khim.-Tekhnol. Univ., Ivanovo, Russia  
 SO Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya  
 Tekhnologiya (2001), 44(5), 6-8  
 CODEN: IVUKAR; ISSN: 0579-2991  
 PB Ivanovskii Gosudarstvennyi Khimiko-Tekhnologicheskii Universitet  
 DT Journal  
 LA Russian  
 CC 68-3 (Phase Equilibria, Chemical Equilibria, and Solutions)  
 Section cross-reference(s): 71, 73  
 AB Zr(IV) and Hf(IV) interaction with **iminodisuccinic acid**  
 (H4A) (I = 1.0; HClO4) was investigated spectrophotometrically at 298.15 K  
 using Semimethylthymol Blue (H4L) as a competing ligand. The formation of  
 MHA+ or MH2A2+ compds. was established. Logarithms of stability consts.  
 were the following:  $\lg\beta(\text{ZrHA}^+) = 13.32 \pm 0.01$ ;  $\lg\beta(\text{ZrH}_2\text{A}_2^+) =$   
 $9.51 \pm 0.01$ ;  $\lg\beta(\text{HfHA}^+) = 12.51 \pm 0.03$ ;  $\lg\beta(\text{HfH}_2\text{A}_2^+) =$   
 $8.65 \pm 0.03$ .  
 ST zirconium hafnium **iminodisuccinic acid** complex aq  
 stability  
 IT Complexation  
     **Formation constant**  
     UV and visible spectra  
         (zirconium and hafnium **iminodisuccinic acid** complex  
         aqueous stability by Semimethylthymol Blue competition method)  
 IT 34400-83-4, Semimethylthymol Blue  
     RL: ARG (Analytical reagent use); CPS (Chemical process); PEP (Physical,  
     engineering or chemical process); ANST (Analytical study); PROC (Process);  
     USES (Uses)  
         (zirconium and hafnium **iminodisuccinic acid** complex  
         aqueous stability by Semimethylthymol Blue competition method)  
 IT 7408-20-0, **Iminodisuccinic acid** 7440-58-6,  
     Hafnium, processes 7440-67-7, Zirconium, processes  
     RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
     process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
         (zirconium and hafnium **iminodisuccinic acid** complex  
         aqueous stability by Semimethylthymol Blue competition method)  
 IT 7408-20-0, **Iminodisuccinic acid**  
     RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
     process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
         (zirconium and hafnium **iminodisuccinic acid** complex  
         aqueous stability by Semimethylthymol Blue competition method)  
 RN 7408-20-0 HCAPLUS  
 CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



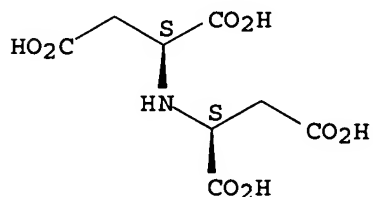
L36 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:773596 HCAPLUS  
 DN 132:98772  
 ED Entered STN: 08 Dec 1999  
 TI Complexation of magnesium ions with succinic and **iminodisuccinic acids** in aqueous solutions  
 AU Vasil'ev, V. P.; Zaitseva, G. A.; Tukumova, N. V.; Bukushina, G. B.  
 CS Ivanovskii Gos. Khim.-Tekhnol. Univ., Ivanovo, Russia  
 SO Zhurnal Neorganicheskoi Khimii (1999), 44(10), 1640-1643  
 CODEN: ZNOKAQ; ISSN: 0044-457X  
 PB MAIK Nauka/Interperiodica Publishing  
 DT Journal  
 LA Russian  
 CC 68-3 (Phase Equilibriums, Chemical Equilibriums, and Solutions)  
 AB Complexation of magnesium, calcium, strontium, barium ions with succinic (1), iminodisuccinic (2), and ethylenediamine-N,N'-disuccinic (3) acids was studied potentiometrically in aqueous solns. The formation consts. and stoichiometry were determined In the case of Mg(2+), the complex stability increases from 1 to 2 with no further increase for 3.  
 ST alk earth complex succinic iminodisuccinic ethylenediaminedisuccinic acid stability stoichiometry  
 IT Chemical chains  
 Complexation  
**Formation constant**  
**Stoichiometry**  
 (complexation of alkaline earth metal cations ions with succinic, iminodisuccinic, and ethylenediaminedisuccinic acids in aqueous solns.)  
 IT Alkaline earth metals  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
 (ions; complexation of alkaline earth metal cations ions with succinic, iminodisuccinic, and ethylenediaminedisuccinic acids in aqueous solns.)  
 IT 110-15-6, Succinic acid, properties **7408-20-0**, **Iminodisuccinic acid** 14127-61-8, Calcium(2+), properties 20846-91-7 22537-22-0, Magnesium(2+), properties 22537-39-9, Strontium(2+), properties 22541-12-4, Barium(2+), properties  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
 (complexation of alkaline earth metal cations ions with succinic, iminodisuccinic, and ethylenediaminedisuccinic acids in aqueous solns.)  
 IT **7408-20-0, Iminodisuccinic acid**  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
 (complexation of alkaline earth metal cations ions with succinic, iminodisuccinic, and ethylenediaminedisuccinic acids in aqueous solns.)  
 RN 7408-20-0 HCAPLUS  
 CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L36 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1999:676704 HCAPLUS  
 DN 132:16071  
 ED Entered STN: 25 Oct 1999  
 TI Complexation of zinc ions with succinic acid in aqueous solutions  
 AU Vasil'ev, V. P.; Zaitseva, G. A.; Tukumova, N. V.; Bukushina, G. B.  
 CS Ivanov. Gos. Khim.-Tekhnol. Univ., Ivanovo, Russia  
 SO Zhurnal Neorganicheskoi Khimii (1999), 44(7), 1165-1167  
 CODEN: ZNOKAQ; ISSN: 0044-457X  
 PB MAIK Nauka/Interperiodica Publishing  
 DT Journal  
 LA Russian  
 CC 68-1 (Phase Equilibria, Chemical Equilibria, and Solutions)  
 AB Complexation between Zn<sup>2+</sup> and succinic, iminodisuccinic, or  
 ethylenediamine N,N'-disuccinic acids was potentiometrically studied in  
 aqueous solns. at 25 °C and I = 0.1 (KNO<sub>3</sub>). The composition and stability  
 of the resulting complexes were established.  
 ST zinc cation succinic iminodisuccinic ethylenediaminedisuccinic acid  
 complex aq stability  
 IT Complexation  
     **Formation constant**  
     Stoichiometry  
         (complexation of zinc ions with succinic, iminodisuccinic,  
         orethylenediamine N,N'-disuccinic acids in aqueous solns.)  
 IT 110-15-6, Succinic acid, processes 7408-20-0,  
     **Iminodisuccinic acid** 23713-49-7, Zn<sup>2+</sup>, processes  
     186459-75-6  
     RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC  
     (Process); RACT (Reactant or reagent)  
         (complexation of zinc ions with succinic, iminodisuccinic,  
         orethylenediamine N,N'-disuccinic acids in aqueous solns.)  
 IT **7408-20-0, Iminodisuccinic acid**  
     RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC  
     (Process); RACT (Reactant or reagent)  
         (complexation of zinc ions with succinic, iminodisuccinic,  
         orethylenediamine N,N'-disuccinic acids in aqueous solns.)  
 RN 7408-20-0 HCAPLUS  
 CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

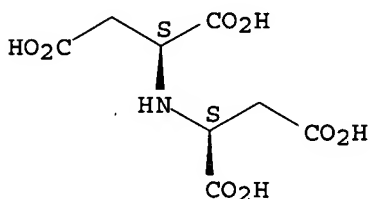
Absolute stereochemistry.



L36 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:345918 HCAPLUS  
 DN 129:100572  
 ED Entered STN: 10 Jun 1998  
 TI Stability of Co(II) and Cu(II) compounds with **iminodisuccinic acid**  
 AU Vasil'ev, V. P.; Kartovtseva, A. V.; Bychkova, S. A.; Tukumova, N. V.  
 CS Ivanov. Gos. Khim.-Tekhnol. Akad., Ivanovo, Russia  
 SO Zhurnal Neorganicheskoi Khimii (1998), 43(5), 808-809  
 CODEN: ZNOKAQ; ISSN: 0044-457X  
 PB MAIK Nauka  
 DT Journal  
 LA Russian  
 CC 68-3 (Phase Equilibriums, Chemical Equilibriums, and Solutions)  
 AB Complexation of Co<sup>2+</sup> and Cu<sup>2+</sup> with **iminodisuccinic acid** (H<sub>4</sub>L) was studied potentiometrically. Formation of the complexes CuH<sub>2</sub>L, CuHL- and CuL<sub>2</sub>-, and CoHL- and CoL<sub>2</sub>- was established and their stability consts. were determined  
 ST **iminodisuccinic acid** cobalt copper complex stability  
 IT **Formation constant**  
 (stability of Co(II) and Cu(II) compds. with **iminodisuccinic acid**)  
 IT 7408-20-0D, **Iminodisuccinic acid**, complexes with cobalt and copper 7440-48-4D, Cobalt, **iminodisuccinic acid** complexes, properties 7440-50-8D, Copper, **iminodisuccinic acid** complexes, properties  
 RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)  
 (stability of Co(II) and Cu(II) compds. with **iminodisuccinic acid**)  
 IT 7408-20-0D, **Iminodisuccinic acid**, complexes with cobalt and copper  
 RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)  
 (stability of Co(II) and Cu(II) compds. with **iminodisuccinic acid**)  
 RN 7408-20-0 HCAPLUS  
 CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L36 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 1998:93774 HCAPLUS  
 DN 128:249162  
 ED Entered STN: '18 Feb 1998  
 TI Linear free energy relationships and the chemical speciation of amino-carboxylate ligand complexes  
 AU Gangoda, Chula K.; Williams, David R.  
 CS Department of Chemistry, University of Wales, Cardiff, Cardiff, CF1 3TB, UK  
 SO Chemical Speciation and Bioavailability (1997), 9(3), 101-111  
 CODEN: CHSBY; ISSN: 0954-2299  
 PB Science and Technology Letters  
 DT Journal

LA English

CC 68-3 (Phase Equilibria, Chemical Equilibria, and Solutions)  
Section cross-reference(s): 4, 34

AB Formation consts. for H<sup>+</sup>, Ba<sup>2+</sup>, Sr<sup>2+</sup>, Mg<sup>2+</sup>, Ca<sup>2+</sup>, Mn<sup>2+</sup>, Fe<sup>2+</sup>, Cd<sup>2+</sup>, Co<sup>2+</sup>, Zn<sup>2+</sup>, Pb<sup>2+</sup>, Ni<sup>2+</sup>, La<sup>3+</sup>, Pr<sup>3+</sup>, Nd<sup>3+</sup>, Sm<sup>3+</sup>, Gd<sup>3+</sup>, Eu<sup>3+</sup>, Y<sup>3+</sup>, Tb<sup>3+</sup>, Dy<sup>3+</sup>, Ho<sup>3+</sup>, Er<sup>3+</sup>, Tm<sup>3+</sup>, Yb<sup>3+</sup>, and Lu<sup>3+</sup> with N-methyliminodiacetate (MIDA<sup>2-</sup>), L-2-(carboxymethyl)iminodiacetate (CIDA<sup>3-</sup>), iminodisuccinate (IDSA<sup>4-</sup>), and N-carboxymethyliminodisuccinate (MAIDSA<sup>5-</sup>) complexes are reported either from laboratory detns. using pH potentiometry, or from a detailed literature survey, or from the use of such consts. in linear free energy relationships to compute the unpublished consts. The ligands studied form a homologous series of general formula HN-(CH<sub>2</sub>-CO<sub>2</sub>-)<sub>n</sub> in which the number of electron donor sites varies from 3 to 6. Such consts. are of use in the computer simulation of the chemical speciation of multi-metal, multi-ligand complex systems such as those encountered in detergent scenarios in the environment.

ST aminocarboxylate ligand metal complex speciation LFER

IT Amino acids, properties  
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); FORM (Formation, nonpreparative); PROC (Process)  
(complexes; linear free energy relationships and chemical speciation of amino-carboxylate ligand complexes)

IT **Formation constant**  
Homologous series  
Ionization constant  
Linear free energy relationship  
Protonation  
Redistribution reaction  
(linear free energy relationships and chemical speciation of amino-carboxylate ligand complexes)

IT Alkaline earth complexes  
Rare earth complexes  
Transition metal complexes  
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); FORM (Formation, nonpreparative); PROC (Process)  
(linear free energy relationships and chemical speciation of amino-carboxylate ligand complexes)

IT 4408-64-4D, metal complexes **7408-20-0D, Iminodisuccinic acid**, metal complexes 7439-95-4D, Magnesium, amino-carboxylate complexes, properties 7440-24-6D, Strontium, amino-carboxylate complexes, properties 7440-39-3D, Barium, amino-carboxylate complexes, properties 7440-70-2D, Calcium, amino-carboxylate complexes, properties 41035-84-1D, N-(Carboxymethyl)aspartic acid, metal complexes 159875-01-1D, metal complexes  
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); FORM (Formation, nonpreparative); PROC (Process)  
(linear free energy relationships and chemical speciation of amino-carboxylate ligand complexes)

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD

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IT 7408-20-0D, Iminodisuccinic acid, metal complexes

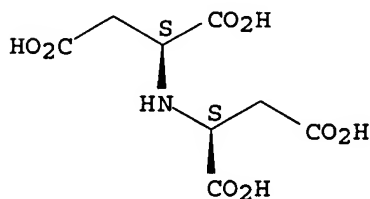
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); FORM (Formation, nonpreparative); PROC (Process)

(linear free energy relationships and chemical speciation of amino-carboxylate ligand complexes)

RN 7408-20-0 HCAPLUS

CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L36 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:465749 HCAPLUS

DN 127:167481

ED Entered STN: 25 Jul 1997

TI Interaction of iminodisuccinic acid with alkaline earth ions in aqueous solutions

AU Vasil'ev, V. P.; Zaitseva, G. A.; Tukumova, N. V.

CS Ivanov. Gos. Khim.-Tekhnol. Akad., Ivanovo, Russia

SO Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya Tekhnologiya (1997), 40(1), 11-14

CODEN: IVUKAR; ISSN: 0579-2991

PB Ivanovskaya Gosudarstvennaya Khimiko-Tekhnologicheskaya Akademiya

DT Journal

LA Russian

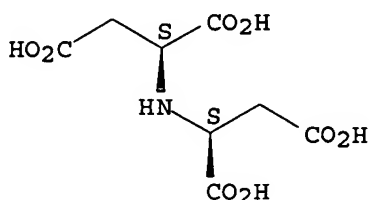
CC 68-3 (Phase Equilibriums, Chemical Equilibriums, and Solutions)

AB The interaction of iminodisuccinic acid with the alkaline

earth ions Ca(II), Sr(II) and Ba(II) was studied at 25° and I = 0.1 (KNO<sub>3</sub>). Formation of the complexes ML<sub>2</sub>-, where M = Ca<sup>2+</sup>, Sr<sup>2+</sup> or Ba<sup>2+</sup>, is shown and the stability consts. of the complexes are calculated

- ST **iminodisuccinic acid** alk earth complex stability;  
calcium **iminodisuccinic acid** complex stability; barium  
**iminodisuccinic acid** complex stability; strontium  
**iminodisuccinic acid** complex stability
- IT **Formation constant**  
(complexation of **iminodisuccinic acid** with alkaline  
earth ions in aqueous solns.)
- IT Alkaline earth complexes  
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation,  
nonpreparative)  
(complexation of **iminodisuccinic acid** with alkaline  
earth ions in aqueous solns.)
- IT **7408-20-0D, Iminodisuccinic acid**, alkaline earth  
complexes 7440-24-6D, Strontium, **iminodisuccinic acid**  
complexes, properties 7440-39-3D, Barium, **iminodisuccinic**  
**acid** complexes, properties 7440-70-2D, Calcium,  
**iminodisuccinic acid** complexes, properties  
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation,  
nonpreparative)  
(complexation of **iminodisuccinic acid** with alkaline  
earth ions in aqueous solns.)
- IT **7408-20-0D, Iminodisuccinic acid**, alkaline earth  
complexes  
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation,  
nonpreparative)  
(complexation of **iminodisuccinic acid** with alkaline  
earth ions in aqueous solns.)
- RN 7408-20-0 HCAPLUS
- CN L-Aspartic acid, N-[(1S)-1,2-dicarboxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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PLEASE CHECK:

<http://thomsonderwent.com/support/dwpioref/reftools/classification/code-revision/>  
FOR DETAILS. <<<

=> d all abeq tech abex tot l62

L62 ANSWER 1 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
AN 2003-638249 [61] WPIX  
DNC C2003-174650  
TI Cosmetic or dermatological preparations containing water-soluble active agent such as ascorbic acid, useful e.g. for combating skin aging, also contain a particulate organic UV filter to provide **color stability**.  
DC A96 B05 D21  
IN HARGENS, B; MAX, H; RASCHKE, T  
PA (BEIE) BEIERSDORF AG  
CYC 30  
PI EP 1319395 A2 20030618 (200361)\* GE 24 A61K007-42 <--  
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC  
MK NL PT RO SE SI SK TR  
DE 10161884 A1 20030626 (200361) A61K007-40 <--  
ADT EP 1319395 A2 EP 2002-26707 20021130; DE 10161884 A1 ~~DE~~ 2001-10161884 20011217  
PRAI ~~DE~~ 2001-10161884 20011217  
IC ICM A61K007-40; A61K007-42  
ICS A61K007-48; A61K009-10  
AB EP 1319395 A UPAB: 20030923  
NOVELTY - Cosmetic or dermatological preparations (A) containing at least one water-soluble active agent (I) and at least one particulate organic UV filter (II) are new.  
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the use of (II) for protection of (I)-containing cosmetic or dermatological preparations against **color** changes.  
USE - (A) are typically skin-protective formulations containing vitamins or the antioxidant alpha -glucosyl rutin (Ia) as the active agents (I); and are useful e.g. for protecting against skin aging symptoms (e.g. wrinkles), combating oxidative stress, scavenging radicals, binding harmful photo-products of lipids, DNA and proteins, promoting cellular renewal and skin regeneration, and treating or preventing pigmentation disorders, dry skin, stratum corneum barrier dysfunction, age-spots, telangiectasis, harmful photochemical reactions and **light** -induced skin damage.  
ADVANTAGE - Inclusion of (II) provides **stable** (I)-containing formulations which do not **discolor** on prolonged storage. (II) may also show a skin-protective effect.  
Dwg.0/0  
FS CPI  
FA AB; DCN  
MC CPI: A12-V01; A12-V04; B03-F; B04-A07E; B06-D08;  
B10-A17; B10-A22; B14-N17; B14-R01; B14-S08;  
D08-B09A  
TECH UPTX: 20030923  
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: (I) is one or more of ascorbic acid, alpha-glucosyl rutin (Ia), carnitine (or derivatives), green tea flavonoids and creatine (or derivatives). (II) is

2,2'-methylene-bis-(6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)-phenol (IIa).

TECHNOLOGY FOCUS - POLYMERS - Preferred Materials: (A) also contains linear, branched and/or cyclic oligo- and/or polysaccharide derivatives (III), specifically at 0.001-10 wt.% and preferably selected from cyclodextrins, di-starch phosphate, non-gelling celluloses, sodium starch octenyl succinate and aluminum sodium starch octenyl succinate.

ABEX UPTX: 20030923

ADMINISTRATION - Specifically (A) are in the form of creams, lotions, sprays, foams, aqueous or aqueous organic solutions, impregnation media for cloths, anhydrous or water-containing sticks or microemulsions; contain (I) at 0.001-10.0 weight% and (II) at 0.01-10 weight%; and have a ratio of (I):(II) of 1-50:500-1 (all claimed).

EXAMPLE - An oil-in-water cream contained (weight%) alpha-glucosyl rutin (Ia; 0.1) and 2,2'-methylene-bis-(6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)-phenol (IIa; 0.5), together with glyceryl stearate-citrate (2), myristyl myristate(1), stearyl alcohol (2), cetyl alcohol (1), hydrogenated coconut glycerides (2), butylene glycol dicaprate/dicaprylate (1), ethylhexyl coconut fatty acid ester (2), Vaseline (RTM; 2), cyclomethicone (5), dicaprylyl ether (1), polydecene (1), ethylhexyl methoxycinnamate (3), ethylhexyl triazone (1), ubiquinone Q10 (0.5), sodium citrate (0.1), hydroxypropyl-beta-cyclodextrin (0.2), sodium iminodisuccinate (0.2), phenoxyethanol (0.3), paraben (0.6), diazolidinyl urea, (0.25) iodopropynyl butylcarbamate (0.1), ethanol (1), xanthan gum (0.2), polyacrylic acid (0.05), glycerol (5), soluble dyes (0.05) and water (plus perfume as required) to 100%.

L62 ANSWER 2 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-450453 [43] WPIX

DNC C2003-119872

TI Cosmetic or dermatological formulation, used for treating skin damaged by aging and UV radiation and for refatting, contains retinoid, ubiquinone (derivative) and nitrogenous vitamin comprising biotin, carnitine and/or derivative.

DC D21 E19

IN MAX, H; RASCHKE, T; SCHIMPF, R

PA (BEIE) BEIERSDORF AG

CYC 1

PI DE 10146802 A1 20030424 (200343)\* 23 A61K007-00 <--

DE 20121908 U1 20030904 (200360) A61K007-48 <--

ADT DE 10146802 A1 DE 2001-10146802 20010922; DE 20121908 U1  
Application no. DE 2001-10146802 20010922, DE 2001-20121908  
20010922

PRAI DE 2001-10146802 20010922; DE  
2001-20121908 20010922

IC ICM A61K007-00; A61K007-48

ICS A61K007-48

AB DE 10146802 A UPAB: 20030707

NOVELTY - Cosmetic and/or dermatological formulations contain retinoid(s), ubiquinone(s) and/or derivative(s) and nitrogenous vitamin(s) selected from biotin, carnitine and/or their derivatives.

DETAILED DESCRIPTION - Cosmetic and/or dermatological formulations contain:

(a) retinoid(s);

(b) ubiquinone(s) and/or derivative(s); and

(c) nitrogenous vitamin(s) selected from biotin, carnitine and/or their derivatives, together with other cosmetic ancillaries, agents and additives.

An INDEPENDENT CLAIM is also included for use of cyclodextrin species and/or their derivatives for increasing the solubility and biological effectiveness of retinoids, biotin, carnitine and/or derivatives and

ubiquinone and/or derivatives in the form of cosmetic and/or dermatological formulations.

USE - The formulations are used for treatment and/or prophylaxis of the symptoms of intrinsic and/or extrinsic aging of the skin, especially dryness; for reducing lines and wrinkles and/or improving the elasticity of the skin; for treatment and/or prophylaxis of the harmful effects of UV radiation on the skin; and for improving the lipid content of the skin (all claimed). They are especially useful on skin stressed by noxious influences in the environment, e.g. UV light, ozone and cigarette smoke and by light-induced aging.

ADVANTAGE - Ubiquinones have long been used as antioxidants in cosmetics and with retinol in topical formulations. However, the compounds have poor bioavailability and mainly remain on the skin. The present formulations avoid this drawback.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D08-B09A; E06-A03; E06-F03; E10-A06A; E10-A22D; E10-E04M1;  
E10-G02F2

TECH UPTX: 20030707

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The formulations contain 0.001-1.0 wt.% retinoid, 0.001-1.0 wt.% ubiquinone and 0.01-5.0 wt.% biotin, carnitine and/or derivatives. They may also contain hydrophilic vitamins and/or cyclodextrin species and/or derivatives, preferably 0.001-5 wt.%, especially gamma-cyclodextrin.

ABEX UPTX: 20030707

SPECIFIC COMPOUNDS - The use of retinol as retinoid is specifically claimed. The use of coenzyme Q 10 as ubiquinone is specifically claimed. The use of acetylcarnitine as carnitine derivative is specifically claimed.

EXAMPLE - An oil/water cream contained (weight%) glyceryl stearate citrate (2), myristyl myristate (1), stearyl alcohol (2), cetyl alcohol (2), hydrogenated coco glycerides (2), butylene glycol dicaprylate/dicaprate (1), ethylhexyl cocoate (3), Vaseline (TM) (2), octamethyltetrasiloxane (cyclomethicone) (4), dicaprylyl ether (1), ethylhexyl methoxycinnamate (3), bis-ethylhexyloxyphenol-methoxyphenyltriazine (1), ubiquinone (Q 10) (0.05), biotin (0.2), retinol (0.05), sodium ascorbylpalmitate (0.1), gamma-cyclodextrin (2.0), sodium iminodisuccinate (0.2), phenoxyethanol (0.3), alkyl p-hydroxybenzoate (paraben) (0.6), diazolidinylurea (0.25), xanthan gum (0.1), polyacrylic acid (carbomer) (0.05), glycerol (10), butylene glycol (2), water and/or oil-soluble colorants (0.05), fillers/additives (distarch phosphate, silica, BHT (butylhydroxytoluene), talc, aluminum stearate) (0.1), perfume (as required) and water (to 100).

L62 ANSWER 3 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-432501 [41] WPIX

DNC C2003-114506

TI Light-protective cosmetic or dermatological composition comprises synergistic combination of hydroxybenzophenone or derivative and iminodisuccinic acid or salt.

DC D21 E19

IN KNUEPPEL, A; SCHULZ, J; GOEPEL, A

PA (BEIE) BEIERSDORF AG

CYC 30

PI EP 1310236 A1 20030514 (200341)\* GE 22 A61K007-42 <--  
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC  
MK NL PT RO SE SI SK TR

DE 10155965 A1 20030522 (200341) A61K007-40 <--

ADT EP 1310236 A1 EP 2002-23511 20021022; DE 10155965 A1 DE 2001-10155965  
20011109

PRAI DE 2001-10155965 20011109  
IC ICM A61K007-40; A61K007-42  
ICS A61K007-48  
AB EP 1310236 A UPAB: 20030630  
NOVELTY - A light-protective cosmetic or dermatological composition comprises:  
(A) a hydroxybenzophenone or derivative; and  
(B) an iminodisuccinic acid or salt.  
USE - Claimed uses are as skin moisturizers or in treating damaged or aged skin.  
ADVANTAGE - Component (B) acts as a synergist for (A) and the composition is water-resistant (both features claimed). The composition is also sand-repellent.  
Dwg.0/0  
FS CPI  
FA AB; DCN  
MC CPI: D08-B01; D08-B09A; E10-A20B; E10-B02D8  
TECH UPTX: 20030630  
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compositions: Component (B) is present at 0.001-15 (especially 0.05-0.5) wt.%. The composition also comprises (i) further UV or broadband filters such as triazines, benzotriazoles or sulfonated water-soluble filters, including 4-(tert. butyl)-4'-methoxydibenzoylmethane and 2,4-bis-((4-(2-ethylhexyloxy)-2-hydroxy)-phenyl)-6-(4-methoxyphenyl)-1,3,5-triazine and (ii) flavone glycosides and/or vitamins or derivatives.  
ABEX UPTX: 20030630  
SPECIFIC COMPOUNDS - Specific Component: (A) is 2-(4'-diethylamino-2'-hydroxybenzoyl)-benzoic acid hexyl ester.  
  
EXAMPLE - An O/W sunscreen emulsion comprised Baypure CX 100 (RTM: iminodisuccinic acid) at 0.3 weight% as well as 2-(4'-diethylamino-2'-hydroxybenzoyl)-benzoic acid hexyl ester (aminobenzophenone) at 4 weight%, both in a composition comprising by weight glycerol monostearate SE (0.5 %), glyceryl stearate citrate (2 %), PEG-100 stearate (0.5 %), butyl methoxydibenzoylmethane (2 %), ethylhexyl triazone (4 %), Parsol SLX (RTM) (3.5 %), 4-methylbenzylidene camphor (4 %), Mexory SX (RTM) (0.25 %), bisimidacylate (1 %), phenylbenzimidazole sulfonic acid (0.5 %), titanium dioxide 'MT-100 TV' (1 %), butyleneglycol dicaprylate/dicaprate (5 %), cyclomethicone (2 %), PVP/hexadecene copolymer (0.5 %), glycerol (3 %), xanthan gum (0.15 %), vitamin E acetate (0.5 %), alpha-glucosylrutin (0.35 %), tri-sodium EDTA (0.1 %), methyl paraben (0.15 %), phenoxyethanol (1 %), perfume (0.2 %) and water (balance).  
  
L62 ANSWER 4 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
AN 2003-395667 [38] WPIX  
DNC C2003-105384  
TI **Stabile** cosmetic or dermatological emulsions containing retinoid, glyceryl stearate and cyclodextrin, useful e.g. for combating skin aging symptoms or UV-induced skin damage or for wound treatment.  
DC B05 D21 E19  
IN RASCHKE, T; SCHWANKE, F  
PA (BEIE) BEIERSDORF AG  
CYC 30  
PI EP 1304102 A2 20030423 (200338)\* GE 17 A61K007-48 <--  
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC  
MK NL PT RO SE SI SK TR  
DE 10151245 A1 20030515 (200340) A61K007-48 <--  
ADT EP 1304102 A2 EP 2002-23277 20021017; DE 10151245 A1 DE 2001-10151245  
20011017  
PRAI DE 2001-10151245 20011017  
IC ICM A61K007-48  
ICS A61K007-42; A61K009-10

AB EP 1304102 A UPAB: 20030616

NOVELTY - Cosmetic or dermatological oil-in-water emulsions (A) containing retinoids (I), glyceryl stearate (II) and cyclodextrins (III) are new.

ACTIVITY - Dermatological; Antiallergic; Antiinflammatory; Immunostimulant; Vulnerary; Antiseborrheic; Antipsoriatic.

MECHANISM OF ACTION - Antioxidant.

USE - (A) is used for treatment and/or prophylaxis of intrinsic and/or extrinsic skin aging and/or UV induced skin damage, or reducing and/or preventing wrinkle formation. (A) Are used in cosmetic methods for treatment and/or prophylaxis of the symptoms of inflammatory skin conditions, protection of skin against sensitivity and dryness, care of the skin after exposure to sunlight, reducing post-reactions in the skin after exposure to UV light and immunostimulation in the skin (specifically for treatment of damaged skin, particular in wound treatment), all involving contacting the relevant area of the skin with (A) (claimed). More generally (I) are useful for combating deficiency, sensitivity or hypoactivity states of the skin or exoskeleton, pathological abnormalities of the skin and/or exoskeleton induced by environmental factors (e.g. smog, reactive oxygen species, free radicals and especially light), light-induced skin damage, symptoms of intrinsic and/or extrinsic skin aging and/or skin damage induced by UV radiation, skin dryness, stratum corneum barrier disorders and inflammatory skin states (including atopic or seborrheic eczema, polymorphic light dermatosis, psoriasis or vitiligo), soothing sensitive or irritated skin, stimulating intracellular DNA synthesis (especially in deficiency or hypoactivity states of the skin), protecting skin against sensitivity-related dryness, reducing and/or preventing wrinkles or promoting intrinsic protection/repair mechanisms (e.g. for dysfunctional enzymes, DNA, lipids or proteins) in the skin, and topical pre- or post-treatment in combination with laser or abrasion treatment (e.g. for reducing skin wrinkles or scars), to counteract skin irritation and promote regeneration of damaged skin.

ADVANTAGE - (A) Contain the oxidation-sensitive active agents (I) in chemically stabilized, high bioavailability, well tolerated form, due to the specific combination of the emulsifier (II) and solubilizer (III). (A) Have strong action in maintaining or restoring the barrier properties of the skin, counteracting dryness of the skin and protecting the skin against environmental influences; and have a very low stinging potential.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B03-A; B04-C02B1; B12-M03; B14-C03; B14-G01; B14-G02A; B14-N17; B14-R01; B14-R05; D08-B09A1; D08-B09A3; E06-A03; E10-C04; E10-E04; E10-F02; E10-G02

TECH UPTX: 20030616

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Components: (I) Is retinol, retinal, retinyl palmitate, retinyl acetate or retinoic acid, especially retinol or retinal. (III) Is alpha-cyclodextrin (alpha-CD), beta-CD, gamma-CD, hydroxypropyl-beta-CD, methyl-beta-CD, hydroxypropyl-gamma-CD or a CD mixture containing at least 30 wt.% gamma-CD.

ABEX UPTX: 20030616

ADMINISTRATION - (I-(III) Are used in conventional topical emulsion formulations such as creams, lotions, milks or aerosol foams. (A) Specifically contains (I) at 0.001-2 (preferably 0.05-0.5) weight %, (II) at 0.01-10 (preferably 0.5-5) weight % and (III) at 0.001-20 (preferably 0.1-5) weight % (all claimed). (A) Optionally further contains other active agents such as UV-A or UV-B filters, antioxidants, antiperspirants or insect repellents.

EXAMPLE - An oil-in-water cream contained (by weight) 0.05 % retinol, 0.1 % retinyl palmitate, 3.0 % self-emulsifying glyceryl stearate and 2.0 %

gamma-cyclodextrin, together with 1 % behenyl alcohol, 1 % cetearyl alcohol, 1 % cetyl alcohol, 1 % hydrogenated coconut glycerides, 1 % shea butter, 1 % butylene glycol dicaprate/dicaprylate, 2 % capric/caprylic triglyceride, 2 % cyclomethicone, 1 % dicaprylyl ether, 1 % titanium dioxide, 2 % ethylhexyl methoxycinnamate, 0.2 % sodium iminodisuccinate, 0.3 % phenoxyethanol, 0.5 % paraben, 2 % hexanediol, 0.1 % xanthan gum, 0.1 % polyacrylic acid, 4 % glycerol, 2 % propylene glycol, 0.1 % dye, 1 % additives, 2 % plant extracts/oils and water (plus perfume as required) to 100 %.

L62 ANSWER 5 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-381519 [36] WPIX

DNC C2003-101272

TI Cosmetic or dermatological preparations containing pentacyclic triterpene and cyclodextrin, useful e.g. for combating skin sensitivity or dryness or treating inflammatory conditions such as eczema or psoriasis.

DC B07 D21 E13

IN RASCHKE, T; RODE, T; SCHOENROCK, U

PA (BEIE) BEIERSDORF AG

CYC 25

PI WO 2003026603 A1 20030403 (200336)\* GE 47 A61K007-48 <--

RW: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK

TR

W: JP US

DE 10146500 A1 20030417 (200336) A61K007-00 <--

ADT WO 2003026603 A1 WO 2002-EP10042 20020907; DE 10146500 A1 DE

2001-10146500 20010921

PRAI DE 2001-10146500 20010921

IC ICM A61K007-00; A61K007-48

ICS A61K007-42; A61K031-56; A61K031-715

AB WO2003026603 A UPAB: 20030609

NOVELTY - Cosmetic or dermatological formulations (A) containing pentacyclic triterpenes (I) and cyclodextrins (II) are new.

ACTIVITY - Dermatological; Antiallergic; Antiinflammatory; Immunostimulant; Vulnerary; Antipsoriatic; Antipruritic; Antiseborrheic; Antioxidant.

MECHANISM OF ACTION - None given.

USE - (A) is used for treatment and/or prophylaxis of inflammatory skin conditions and/or protection of skin against sensitivity and dryness; care of skin after exposure to sunlight and/or inhibiting post-reaction of skin after exposure to UV-rays; or immunostimulation in the skin, especially for treatment of damaged skin or particularly wounds (claimed). It may also be used for:

(1) treatment and prophylaxis of deficiency, sensitivity and hypoactivity states of the skin or exoskeleton; the effects on the skin or exoskeleton of environmental agents (e.g. smoke, smog, reactive oxygen species or free radicals); light-induced skin damage; pruritis; dry skin and stratum corneum barrier deficiencies; and inflammatory skin conditions (such as atopic or seborrheic eczema, polymorphic light dermatosis, psoriasis or vitiligo);

(2) soothing sensitive or irritated skin;

(3) stimulating intracellular DNA synthesis (especially in deficiency or hypoactive states of the skin);

(4) promoting the intrinsic protection and repair mechanism of the skin (e.g. for dysfunctional enzymes, DNA, lipids and proteins); and

(5) pre or post-treating skin subjected to laser and abrasion treatment (e.g. for reducing wrinkles and scars), to reduce irritation and promote regeneration.

ADVANTAGE - (II) stabilizes, solubilizes and improves the skin penetration and bioavailability of (I); and improves the action of (I) in maintaining or restoring skin barrier properties and combating dryness of the skin. (A) also has a low stinging potential.

Dwg.0/0

FS CPI  
FA AB; DCN  
MC CPI: B07-A02B; B09-B; B14-G01; B14-L01; **B14-N17**; **B14-R05**  
; B14-S08; **D08-B09A1**; E06-A03; E07-A02H

TECH UPTX: 20030609

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: (A) contains (wt.%) (I) (0.001-2), and (II) (0.001-20, especially 0.1-5); and is in the form of a solution, emulsion (of the water-in-oil, oil-in-water or multiple (e.g. water-in-oil-in-water or oil-in-water-in-oil) type), aqueous or lipid dispersion, gel, solid stick or aerosol, especially a cream, lotion, milk, aerosol-delivered emulsion or cloth-impregnating composition (all claimed). (I) and (II) are optionally used in combination with other active agents such as UV-A or UV-B filters or antioxidants. The pentacyclic triterpene (I) is sericoside or a plant extract containing sericoside. The cyclodextrin (II) is alpha-cyclodextrin, beta-cyclodextrin, gamma-cyclodextrin, hydroxypropyl-beta-cyclodextrin, methyl-beta-cyclodextrin, hydroxypropyl-cyclodextrin or a mixture of cyclodextrins containing at least 30 wt.% gamma-cyclodextrin.

ABEX UPTX: 20030609

EXAMPLE - An water-in-oil-in-water cream contained (weight%) sericoside (from Terminalia sericea) (0.3) and gamma-cyclodextrin (0.8), together with self-emulsifying glyceryl stearate (2.5), PEG-40 stearate (1), cetearyl alcohol (3), hydrogenated coconut glycerides (1), 12-15C alkyl benzoates (4), castor oil (8), capric/caprylic triglyceride (1), octyldodecanol (2), Vaseline (RTM; 1), cyclomethicone (3), dicaprylyl carbonate (2), titanium dioxide (1), octocrylene (5), phenylbenzimidazole-sulfonic acid (0.5), **iminodisuccinate** (0.2), phenoxyethanol (0.5), parabens (0.1), diazolidinyl urea (0.2), polyacrylic acid (2), glycerol (12), additives (0.5) and water (plus perfumes as required) (balance).

L62 ANSWER 6 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-344101 [33] WPIX

DNC C2003-090448

TI Cosmetic or dermatological compositions useful as aftersun or skin care products, especially against acne, comprises lecithin- and/or chitosan and **iminodisuccinic acid**.

DC D21 E11 E16

IN KNUEPPEL, A; KROEPKE, R; LINDEMANN, W; NIELSEN, J

PA (BEIE) BEIERSDORF AG

CYC 1

PI DE 10142932 A1 20030327 (200333)\* 7 A61K007-00 <--

ADT DE 10142932 A1 DE 2001-10142932 20010901

PRAI DE 2001-10142932 20010901

IC ICM **A61K007-00**

ICS **A61K007-48**

AB DE 10142932 A UPAB: 20030526

NOVELTY - Cosmetic or dermatological compositions includes chitosan and/or lecithin, and **iminodisuccinic acid** or its salts.

ACTIVITY - Dermatological; Antiseborrheic. No biological data given.

MECHANISM OF ACTION - None given.

USE - The compositions are useful as aftersun or skin care products and as cleansing, care or treatment products for bad skin, especially against all forms of acne (all claimed).

ADVANTAGE - The **iminodisuccinic acid** improves the color, light and odor stability of the compositions (no data given).

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: **D08-B09A1**; E05-G09D; E10-B02D8

TECH UPTX: 20030526

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The composition comprises 0.05-5 weight percent (wt.%) **iminodisuccinic**

acid (especially as the tetrasodium salt), 0.5-2.5 wt.% lecithin and 0.35-1.75 wt.% chitosan.

ABEX UPTX: 20030526

EXAMPLE - An oil-in-water emulsion comprises (weight%): chitosan (1), lecithin (1), paraffin oil (2.5), petrolatum (8), tetrapotassium iminodisuccinate (0.05), decyl oleate (0.5), octyldodecanol (0.5), dicaprylyl carbonate (0.1), glycerol (3), lactic acid (0.6), perfume (qs), ethanol (2), caprylic/capric triglyceride (2), methyl paraben (0.4), propyl paraben (0.3) and water (to 100).

L62 ANSWER 7 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-332877 [31] WPIX

DNC C2003-086301

TI Cosmetic and dermatological formulation used for moisturizing skin and protection from aging by light contains hydrophilic substance and dialkyl naphthalate compound.

DC B05 D21 E14

IN KNUEPPEL, A; WENDEL, V; GOEPPPEL, A; GOPPEL, A

PA (BEIE) BEIERSDORF AG

CYC 25

PI WO 2003020235 A2 20030313 (200331)\* GE 32 A61K007-42 <--

RW: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR

W: US

DE 10141472 A1 20030320 (200331) A61K007-40 <--

EP 1423088 A2 20040602 (200436) GE A61K007-42 <--

R: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

US 2004247541 A1 20041209 (200481) A61K007-42 <--

ADT WO 2003020235 A2 WO 2002-EP9374 20020822; DE 10141472 A1 DE 2001-10141472 20010829; EP 1423088 A2 EP 2002-779270 20020822, WO 2002-EP9374 20020822; US 2004247541 A1 Cont of WO 2002-EP9374 20020822, US 2004-789881 20040227

FDT EP 1423088 A2 Based on WO 2003020235

PRAI DE 2001-10141472 20010829

IC ICM A61K007-40; A61K007-42

ICS A61K007-48; A61K047-14

AB WO2003020235 A UPAB: 20030516

NOVELTY - Cosmetic and dermatological formulation contains at least one hydrophilic substance (I) and at least one dialkyl naphthalate compound (II).

DETAILED DESCRIPTION - Cosmetic and dermatological formulation contains at least one hydrophilic substance (I) and at least one dialkyl naphthalate compound of formula (II).

R1, R2 = 6-24C alkyl.

ACTIVITY - Dermatological.

No biological tests or results are given in the source material.

MECHANISM OF ACTION - None given in the source material.

USE - Used for moisturizing skin and protecting skin from aging by light (all claimed), The formulation is used as a skin and hair care formulation, skin cleanser, shampoo and decorative cosmetic, barrier cream, day and night cream and as base for pharmaceutical formulations.

ADVANTAGE - (II) Increase the effectiveness and stability of hydrophilic substances in cosmetic or dermatological formulations and are good transport systems for them. The formulation can be stored for long periods.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: B04-A08; B04-A10; B04-C02D; B05-B01B; B06-H; B07-H; B10-A17; B10-A22; B10-B02; B10-C02; B10-D03; B10-E02; B10-E04; B10-F02; B10-G02; B14-N17C; B14-R01; B14-R05; D08-B01; D08-B03; D08-B09A1;



D08-B09A3; D09-E01; D09-E03; E05-E02C; E06-H; E07-H;  
 E10-A17B; E10-A22D; E10-B02; E10-C02; E10-D03; E10-E02U; E10-E04;  
 E10-F02; E10-G02

TECH UPTX: 20030516

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The formulation contains 0.001-30 (preferably 0.01-20, especially 0.5-15) wt.% (II). (I) Comprises biotin, carnitine or its derivatives, creatine or its derivatives, folic acid, pyridoxine, niacinamide, polyphenols (preferably flavonoids, especially alpha-glucosylrutin), ascorbic acid or its derivatives, hamamelis, aloe vera, panthenol and/or amino-acids. The formulation also contains at least one UV filter substance comprising triazines, benzotriazoles, UV filters that are liquid at room temperature or organic and/or inorganic pigments. The formulation preferably contains at least one UV-A filter substance and/or a broad band filter comprising dibenzoylmethane derivatives (preferably 4-(tert.-butyl)-4'-methoxydibenzoylmethane), 2,4-bis-((4-(2-ethyl-hexyloxy)-2-hydroxy)-phenyl)-6-(4-methoxyphenyl)-1,3,5-triazine and/or bis-sodium salt of phenylene-1,4-bis-(2-benzimidazolyl)-3,3'-5,5'-tetrasulfonic acid. The formulation also contains at least one fat-soluble substance, especially vitamin E and/or its derivatives.

ABEX UPTX: 20030516

EXAMPLE - An oil in water sun protection emulsion contained (in weight%): glyceryl monostearate SE (0.50), glyceryl stearate citrate (2.00), polyethylene glycol-40 stearate (0.50), cetyl alcohol (2.50), butyl methoxydibenzoylmethane (1.00), ethylhexyl triazone (4.00), diethylhexyl butamido triazone (1.00), phenylbenzimidazole sulfonic acid (0.50), bioctyltriazole (2.00), diethylhexyl 2,6-naphthalate (3.50), Titanium Dioxid MT-100Z (RTM; titanium dioxide particles with aluminum hydroxide/stearic acid coating) (1.00), butylene glycol dicaprylate/dicaprate (5.00), cyclomethicone (2.00), polyvinylpyrrolidone hexadecene copolymer (0.50), glycerol (3.00), xanthan gum (0.15), vitamin E acetate (0.50), alpha-glucosylrutin (0.25), methylparaben (0.15), phenoxyethanol (1.00), iminodisuccinic acid (0.35), perfume (0.20) and water (to 100).

L62 ANSWER 8 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-302807 [30] WPIX

DNC C2003-079505

TI Sand-repellent **light**-shielding cosmetic or dermatological compositions based on oil-soluble UV filter materials also contain an **iminodisuccinic acid** or salt.

DC D21 E19

IN DOERSCHNER, A; KNUEPPEL, A; KRANZ, A; KROEPKE, R; GOEPPPEL, A; KRANTZ, A  
 PA (BEIE) BEIERSDORF AG

CYC 30

PI EP 1285648 A2 20030226 (200330)\* GE 16 A61K007-42 <--  
 R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC  
 MK NL PT RO SE SI SK TR

DE 10140546 A1 20030306 (200330) A61K007-40 <--

ADT EP 1285648 A2 EP 2002-16621 20020725; DE 10140546 A1 DE 2001-10140546  
 20010817

PRAI DE 2001-10140546 20010817

IC ICM A61K007-40; A61K007-42

ICS A61K007-00; A61K007-48

AB EP 1285648 A UPAB: 20030513

NOVELTY - Providing a **light**-shielding cosmetic or dermatological compositions comprising an oil-soluble UV filter material and an **iminodisuccinic acid** or salt.

DETAILED DESCRIPTION - **Light**-shielding cosmetic or dermatological compositions comprise:

(A) an oil-soluble UV filter material; and

(B) an **iminodisuccinic acid** or salt.

USE - Claimed uses of the compositions are as skin moisturizers and

as compositions for treating **light**-damaged skin.

ADVANTAGE - The compositions are sand-repellent and (A) and (B) act synergistically, with the **light**-shielding effect being greater than for compositions from which (B) is absent (claimed).

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D08-B09A1; D08-B09A3; E10-A24B; E10-B02A2;  
E10-E02D; E10-E02F1; E10-F02A1

TECH UPTX: 20030513

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compositions: The content of (B) is 0.001-15 (especially 0.05-5) wt.%. (B) is available eg as Iminosuccinate VP OC 370 (TM) or Baypure CX 100 (TM).

The composition also contains a triazine, benzotriazole or (in)organic pigment and also a further UV filter or broadband filter comprising a dibenzoylmethane derivative (especially 4-(tert. butyl)-4'-methoxydibenzoylmethane), phenylene-1,4-bis-(2-benzimidazolyl)-3,3',5,5'-tetrasulfonic acid sodium salt, 1,4-(di-2-oxo-10-sulfo-3-bornylidenemethyl)-benzene or its salts or 2,4-bis-((4-(2-ethylhexoxy)-2-hydroxy)-phenyl)-6-(4-methoxyphenyl)-1,3,5-triazine.

Also present is a flavone glycoside, especially alpha-glycosylrutin and/or vitamin E or a derivative.

ABEX UPTX: 20030513

EXAMPLE - An oil-in-water sunscreen emulsion contained 0.3 weight% Baypure CX 100 (TM) (**iminodisuccinic acid**) together with by weight :

glycerolmonostearate (0.5 %), glycerol stearate citrate (2 %), PEG-400 stearate (0.5 %), butyl methoxydibenzoylmethane (2 %), ethylhexyl triazone (4 %), Parsol SLX (TM) (UV filter) (3.5 %), 4-methylbenzylidene camphor (4 %), bisimidacylate (1 %), phenylbenzimidazole sulfonic acid (0.5 %), T-805 (TM) (titanium dioxide) (1 %), butyleneglycol dicaprylate/dicaprate (5 %), cyclomethicone (2 %), PVP hexadecene copolymer (0.5 %), glycerol (3 %), xanthan gum (0.15 %), vitamin E acetate (0.5 %), EDTA (0.1 %), methylparaben (0.15 %), phenoxyethanol (1 %), perfume (0.2 %) and water (balance).

L62 ANSWER 9 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-270136 [27] WPIX

DNC C2003-071091

TI Sand-repellent **light**-shielding cosmetic or dermatological compositions based on water-soluble UV filter materials also contain an **iminodisuccinic acid** or salt.

DC D21 E19

IN DOERSCHNER, A; KNUEPPEL, A; KRANZ, A; KROEPKE, R; GOEPPPEL, A

PA (BEIE) BEIERSDORF AG

CYC 30

PI EP 1284129 A1 20030219 (200327)\* GE 21 A61K007-42 <--  
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC  
MK NL PT RO SE SI SK TR

DE 10140540 A1 20030306 (200327) A61K007-40 <--

ADT EP 1284129 A1 EP 2002-16605 20020725; DE 10140540 A1 DE 2001-10140540  
20010817

PRAI DE 2001-10140540 20010817

IC ICM A61K007-40; A61K007-42

ICS A61K007-48

AB EP 1284129 A UPAB: 20030429

NOVELTY - **Light**-shielding cosmetic or dermatological compositions comprise:

(A) a water-soluble UV filter material; and

(B) an **iminodisuccinic acid** or salt.

USE - Claimed uses of the compositions are as skin moisturizers, shields against skin ageing and as compositions for treating **light**-damaged skin.

ADVANTAGE - The compositions are sand-repellent and (A) and (B) act

synergistically, with the **light**-shielding effect being greater than for compositions from which (B) is absent (claimed).

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D08-B09A1; D08-B09A3; E10-B01C1; E10-C02A;  
E10-E04K; E10-F02A2; E10-H01E

TECH UPTX: 20030429

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compositions : The content of (B) is 0.001-15 (especially 0.05-5) wt.%. (B) is available e.g. as Iminosuccinate VP OC 370(TM) or Baypure CX 100(TM). The composition also contains a triazine, benzotriazole or (in)organic pigment and/or a UV filter or broadband filter comprising a dibenzoylmethane derivative, especially 4-(tert. butyl)-4'-methoxydibenzoylmethane and/or 2,4-bis-((4-(2-ethylhexoxy)-2-hydroxy)-phenyl)-6-(4-methoxyphenyl)-1,3,5-triazine. Also present is a flavone glycoside, especially alpha-glycosylrutin and/or vitamin E or a derivative.

ABEX UPTX: 20030429

EXAMPLE - An oil-in-water sunscreen emulsion contained 1 weight% Iminosuccinate VP OC 370(TM) (**iminodisuccinic acid**) together with by weight : glycerolmonostearate (0.5%), glycerol stearate citrate (3.5%), cetearyl sulfate (2%), butylmethoxydibenzoylmethane (2%), ethylhexyl triazone (3%), bisimidacylate (0.5%), dicaprylylether (3.5%), Silsoft Surface (TM) (2.5%), xanthan gum (0.05%), vitamin E acetate (0.25%), Glydant(TM) (DMDM hydantoin) (0.4%), methylparaben (0.25%), ethanol (1.5%) and water (balance).

L62 ANSWER 10 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-268510 [26] WPIX

DNC C2003-070272

TI **Iminodisuccinic acid** and/or its salts are used as **color- and light-stabilizers** in cosmetic or dermatological formulation, e.g. skin or face care, sun protection or after-sun product or decorative cosmetic.

DC D21

IN KNUEPPEL, A; KROEPKE, R; NIELSEN, J; GOEPPEL, A; GOPPEL, A; KROPKE, R

PA (BEIE) BEIERSDORF AG

CYC 32

PI WO 2003020238 A1 20030313 (200326)\* GE 12 A61K007-48 <--  
RW: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK  
TR

W: JP US

DE 10142927 A1 20030320 (200328) A61K007-00 <--

EP 1427389 A1 20040616 (200439) GE A61K007-48 <--

R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC  
MK NL PT RO SE SI SK TR

US 2004228893 A1 20041118 (200477) A61K007-42 <--

JP 2005504780 W 20050217 (200513) 20 A61K007-48 <--

ADT WO 2003020238 A1 WO 2002-EP9576 20020828; DE 10142927 A1 **DE 2001-10142927 20010901**; EP 1427389 A1 EP 2002-797633 20020828, WO 2002-EP9576 20020828; US 2004228893 A1 Cont of WO 2002-EP9576 20020828, US 2004-791354 20040301; JP 2005504780 W WO 2002-EP9576 20020828, JP 2003-524547 20020828

FDT EP 1427389 A1 Based on WO 2003020238; JP 2005504780 W Based on WO 2003020238

PRAI **DE 2001-10142927 20010901**

IC ICM A61K007-00; A61K007-42; A61K007-48

ICS A61K007-021; A61K007-40

AB WO2003020238 A UPAB: 20030428

NOVELTY - The use of **iminodisuccinic acid** (I) and/or its salts for increasing the **color and light stability** of cosmetic and/or dermatological formulations is claimed.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) Use of (I) and/or its salts for increasing the **color** and **light stability** of cosmetic and/or dermatological formulations in transparent and/or translucent packs;

(2) Cosmetic and/or dermatological products, comprising the formulation and a transparent and/or translucent pack.

USE - The cosmetic and dermatological products are used as skin care, face care and sun protection products (all claimed), e.g. skin care cream, lotion, milk, salve, oil, balm and serum, decorative cosmetics or sun protection or after-sun product.

ADVANTAGE - Although consumers prefer transparent and translucent containers, cosmetic and dermatological formulations often have limited **light-** and **color stability** and must be protected from **light**. Adding **iminodisuccinic acid** and salts increases the **color**, **light** and **odor stability**, especially in transparent and/or translucent packs.

Dwg.0/0

FS CPI

FA AB

MC CPI: D08-B09A1; D09-E01

ABEX UPTX: 20030428

EXAMPLE - A formulation contained (weight%) glyceryl stearate citrate (2), myristyl myristate (1), stearyl alcohol (2), cetyl alcohol (1), hydrogenated coco fat glycerides (2), butylene glycol dicaprylate/dicaprate (1), ethylhexyl cocoate (3), Vaseline (RTM) (4), dicaprylyl ether (1), ethylhexyl methoxycinnamate (3), bis-ethylhexyloxyphenol-methoxyphenyltriazine (1), ubiquinone (Q10) (0.05), **tetrasodium iminodisuccinate** (0.1), phenoxyethanol (0.3), alkyl p-hydroxybenzoate (0.5), diazolidinylurea (0.25), iodopropynyl butyl carbamate (0.1), denatured ethanol (1), xanthan gum (0.1), polyacrylic acid (0.2), glycerol (8), water- and/or oil-soluble dyes (0.05), perfume (as required) and water (to 100).

L62 ANSWER 11 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-259270 [26] WPIX

DNC C2003-067793

TI Sand-repellent **light**-shielding cosmetic or dermatological compositions based on triazine or derivative also contain **iminodisuccinic acid** or salt.

DC D21 E19

IN DOERSCHNER, A; KNUEPPEL, A; KRANZ, A; KROEPKE, R; GOEPPPEL, A

PA (BEIE) BEIERSDORF AG

CYC 30

PI EP 1284132 A1 20030219 (200326)\* GE 22 A61K007-42 <--

R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC

MK NL PT RO SE SI SK TR

DE 10140537 A1 20030227 (200326) A61K007-40 <--

ADT EP 1284132 A1 EP 2002-17994 20020812; DE 10140537 A1 **DE 2001-10140537 20010817**

PRAI **DE 2001-10140537 20010817**

IC ICM **A61K007-40; A61K007-42**

ICS **A61K007-48**

AB EP 1284132 A UPAB: 20030428

NOVELTY - **Light**-shielding cosmetic or dermatological compositions comprise:

(A) a triazine or derivative; and

(B) an **iminodisuccinic acid** or salt.

USE - Claimed uses of the compositions are as skin moisturizers, shields against skin ageing and as compositions for treating **light** -damaged skin.

ADVANTAGE - The compositions are sand-repellent and (A) and (B) act

synergistically, with the **light**-shielding effect being greater than for compositions from which (B) is absent (claimed).

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: **D08-B09A1**; **D08-B09A3**; E10-B01C1; E10-C02A;  
E10-E04K; E10-F02A2; E10-H01E

TECH UPTX: 20030428

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compositions : The content of (B) is 0.001-15 (especially 0.05-5) wt.%. (B) is available e.g. as Iminosuccinate VP OC 370(TM) or Baypure CX 100(TM). The compositions contain a benzotriazole, liquid UV-filter or (in)organic pigment and also a further UV-A filter or broadband filter comprising a dibenzoylmethane derivative (especially 4-(tert. butyl)-4'-methoxydibenzoylmethane), phenylene-1,4-bis-(2-benzimidazolyl)-3,3',5,5'-tetrasulfonic acid sodium salt, 1,4-(di-2-oxo-10-sulfo-3-bornylidenemethyl)-benzene or its salts, 2-phenylbenzimidazole-5-sulfonic acid or 2,2'-methylenebis-(6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)-phenol). Also present is a flavone glycoside, especially alpha-glycosylrutin and/or vitamin E or a derivative.

ABEX UPTX: 20030428

EXAMPLE - An oil-in-water sunscreen emulsion contained 0.3 weight% Baypure CX 100(TM) (**iminodisuccinic acid**) together with by weight : glycerolmonostearate (0.5%), glycerol stearate citrate (2%), PEG-400 stearate (0.5%), aniso triazine (0.5%), ethyl hexyl triazone (4%), butyl methoxydibenzoylmethane (2%), bisimidacylate (1%), phenylbenzimidazole sulfonic acid (0.5%), MT-100 Z(TM) (titanium dioxide) (1%), butyleneglycol dicaprylate/dicaprate (5%), PVP hexadecene copolymer (0.5%), glycerol (3%), xanthan gum (0.15%), biosaccharide gum-1 (2.5%), vitamin E acetate (0.5%), methylparaben (0.15%), phenoxyethanol (1%), perfume (0.4%) and water (balance).

L62 ANSWER 12 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-259269 [26] WPIX

DNC C2003-067792

TI Sand-repellent **light**-shielding cosmetic or dermatological compositions based on benzotriazoles also contain **iminodisuccinic acid** or salt.

DC D21 E19

IN DOERSCHNER, A; KNUEPPEL, A; KRANZ, A; KROEPKE, R; GOEPPPEL, A

PA (BEIE) BEIERSDORF AG

CYC 30

PI EP 1284131 A1 20030219 (200326)\* GE 21 A61K007-42 <--  
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC  
MK NL PT RO SE SI SK TR

DE 10140536 A1 20030227 (200326) A61K007-40 <--

ADT EP 1284131 A1 EP 2002-17993 20020812; DE 10140536 A1 **DE 2001-10140536 20010817**

PRAI **DE 2001-10140536 20010817**

IC ICM **A61K007-40; A61K007-42**

ICS **A61K007-48**

AB EP 1284131 A UPAB: 20030428

NOVELTY - **Light**-shielding cosmetic or dermatological compositions comprise:

(A) a benzotriazole; and

(B) an **iminodisuccinic acid** or salt.

USE - Claimed uses of the compositions are as skin moisturizers and as compositions for treating **light**-damaged skin.

ADVANTAGE - The compositions are sand-repellent and (A) and (B) act synergistically, with the **light**-shielding effect being greater than for compositions from which (B) is absent (claimed).

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D08-B09A1; D08-B09A3; E10-B01C1; E10-C02A;  
E10-E04K; E10-F02A2; E10-H01E

TECH UPTX: 20030428

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compositions: The content of (B) is 0.001-15 (especially 0.05-5) wt.%. (B) is available e.g. as Iminosuccinate VP OC 370(TM) or Baypure CX 100(TM). The compositions contain a triazine, camphor derivative or (in)organic pigment and also a further UV-A filter or broadband filter comprising a dibenzoylmethane derivative (especially 4-(tert. butyl)-4'-methoxydibenzoylmethane), phenylene-1,4-bis-(2-benzimidazolyl)-3,3',5,5'-tetrasulfonic acid sodium salt, 1,4-(di-2-oxo-10-sulfo-3-bornylidenemethyl)-benzene or its salts or 2,4-bis-((4-(2-ethylhexoxy)-2-hydroxy)-phenyl)-6-(4-methoxyphenyl)-1,3,5-triazine. Also present is a flavone glycoside, especially alpha-glycosylrutin and/or vitamin E or a derivative.

ABEX UPTX: 20030428

EXAMPLE - An oil-in-water sunscreen emulsion contained 0.3 weight% Baypure CX 100(TM) (iminodisuccinic acid) together with by weight : glycerolmonostearate (0.5%), glycerol stearate citrate (2%), PEG-400 stearate (0.5%), Tinsorb M(TM) (2,2'-methylenebis-(6-(2H-benzotriazol--2-yl)-4-(1,1,3,3-tetramethylbutyl)-phenol)) (0.5%), butyl methoxydibenzoylmethane (2%), ethylhexyl triazone (4%), 4-methylbenzylidene camphor (4%), bisimidacylate (1%), phenylbenzimidazole sulfonic acid (0.5%), MT-100 Z(TM) (titanium dioxide) (1%), butyleneglycol dicaprylate/dicaprate (5%), cyclomethicone (2%), PVP hexadecene copolymer (0.5%), glycerol (3%), xanthan gum (0.15%), vitamin E acetate (0.5%), EDTA (0.1%), Konkaben LMB(TM) (0.1%), methylparaben (0.15%), phenoxyethanol (1%), perfume (0.2%) and water (balance).

L62 ANSWER 13 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-259268 [26] WPIX

DNC C2003-067791

TI Sand-repellent **light**-shielding cosmetic or dermatological compositions based on dibenzoylmethane derivatives also contain **iminodisuccinic acid** or salt.

DC D21 E19

IN DOERSCHNER, A; KNUEPPEL, A; KRANZ, A; KROEPKE, R; GOEPPPEL, A

PA (BEIE) BEIERSDORF AG

CYC 30

PI EP 1284130 A2 20030219 (200326)\* GE 17 A61K007-42 <--  
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC  
MK NL PT RO SE SI SK TR

DE 10140548 A1 20030227 (200326) A61K007-40 &lt;--

ADT EP 1284130 A2 EP 2002-16606 20020725; DE 10140548 A1 DE 2001-10140548 20010817

PRAI DE 2001-10140548 20010817

IC ICM A61K007-40; A61K007-42

ICS A61K007-48

AB EP 1284130 A UPAB: 20030428

NOVELTY - Use is claimed of **iminodisuccinic acids** or their salts in **stabilizing** dibenzoylmethane derivatives against UV-induced decomposition.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for **light**-shielding cosmetic or dermatological compositions comprising:

(A) a dibenzoylmethane derivative; and

(B) an **iminodisuccinic acid** or salt.

USE - Claimed uses of the compositions are as skin moisturizers and as compositions for treating **light**-damaged skin.

ADVANTAGE - The compositions are sand-repellent and (A) and (B) act synergistically, with the **light**-shielding effect being greater than for compositions from which (B) is absent (claimed).

Dwg.0/0

FS CPI  
 FA AB; DCN  
 MC CPI: D08-B09A1; D08-B09A3; E10-B01C1; E10-C02A;  
 E10-E04K; E10-F02A2; E10-H01E

TECH UPTX: 20030428

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compositions: The content of (B) is 0.001-15 (especially 0.05-5) wt.%. (B) is available e.g. as Iminosuccinate VP OC 370(TM) or Baypure CX 100(TM). The compositions contain a triazine, benzotriazole or (in)organic pigment and also a further UV-A filter or broadband filter comprising phenylene-1,4-bis-(2-benzimidazolyl)-3,3',5,5'-tetrasulfonic acid sodium salt, 1,4-(di-2-oxo-10-sulfo-3-bornylidenemethyl)-benzene or its salts or 2,4-bis-((4-(2-ethylhexoxy)-2-hydroxy)-phenyl)-6-(4-methoxyphenyl)-1,3,5-triazine. Also present is a flavone glycoside, especially alpha-glycosylrutin and/or vitamin E or a derivative.

ABEX UPTX: 20030428

EXAMPLE - An oil-in-water sunscreen emulsion contained 0.3 weight% Baypure CX 100(TM) (iminodisuccinic acid) together with by weight :  
 glycerol monostearate (0.5%), glycerol stearate citrate (2%), PEG-400 stearate (0.5%), hydrogenated cocoglycerides (2%), aniso triazine (0.5%), butyl methoxy dibenzoylmethane (2%), ethylhexyl triazone (4%), 4-methylbenzylidene camphor (4%), bisimidacylate (1%), phenyl benzimidazole sulfonic acid (0.5%), MT-100 Z(TM) (titanium dioxide) (1%), butylene glycol dicaprylate/dicaprate (5%), cyclomethicone (2%), PVP hexadecene copolymer (0.5%), glycerol (3%), xanthan gum (0.15%), vitamin E acetate (0.5%), EDTA (0.1%), Konkaben LMB(TM) (0.1%), methyl paraben (0.15%), phenoxyethanol (1%), perfume (0.2%) and water (balance).

L62 ANSWER 14 OF 14 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1998-532841 [46] WPIX

DNC C1998-159932

TI Alkali metal imino-di succinate preparation

in high yield - from maleic anhydride, alkali metal hydroxide, ammonia and water, especially used for improving fibre whiteness in paper-making.

DC B05 C04 D21 D25 E12 E16 F06 F09 M11

IN DOBERT, F; GROTH, T; JOENTGEN, W; ROICK, T; WAGNER, P; WENDEROTH, E;  
 DOEBERT, F

PA (FARB) BAYER AG

CYC 82

PI DE 19713911 A1 19981008 (199846)\* 10 C07C229-24 <--  
 WO 9845251 A1 19981015 (199847) GE C07C229-24 <--  
 RW: AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA  
 PT SD SE SZ UG ZW  
 W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE  
 GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG  
 MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG  
 US UZ VN YU ZW  
 AU 9870399 A 19981030 (199911) C07C229-24 <--  
 EP 975582 A1 20000202 (200011) GE C07C229-24 <--  
 R: AT BE CH DE DK ES FI FR GB IT LI NL PT SE  
 US 6107518 A 20000822 (200042) C07C229-00 <--  
 BR 9809063 A 20000801 (200043) C07C229-24 <--  
 US 6207010 B1 20010327 (200119) D21C003-20 <--  
 MX 9908912 A1 20000201 (200123) C07C229-24 <--  
 KR 2001005962 A 20010115 (200151) C07C229-24 <--  
 JP 2001519792 W 20011023 (200202) 29 C07C229-24 <--  
 EP 1247800 A1 20021009 (200267) GE C07C229-24  
 R: AT BE CH DE DK ES FI FR GB IT LI NL PT SE  
 EP 975582 B1 20021106 (200281) GE C07C229-24  
 R: AT BE CH DE DK ES FI FR GB IT LI NL PT SE  
 DE 59806191 G 20021212 (200282) C07C229-24  
 ES 2183345 T3 20030316 (200325) C07C229-24  
 MX 209911 B 20020823 (200367) C07C227-08

ADT DE 19713911 A1 DE 1997-1013911 19970404; WO 9845251 A1 WO 1998-EP1670 19980323; AU 9870399 A AU 1998-70399 19980323; EP 975582 A1 EP 1998-917048 19980323, WO 1998-EP1670 19980323; US 6107518 A WO 1998-EP1670 19980323, US 1999-381792 19990924; BR 9809063 A BR 1998-9063 19980323, WO 1998-EP1670 19980323; US 6207010 B1 Div ex US 1999-381792 19990924, US 2000-585224 20000601; MX 9908912 A1 MX 1999-8912 19990928; KR 2001005962 A KR 1999-709039 19991002; JP 2001519792 W JP 1998-542304 19980323, WO 1998-EP1670 19980323; EP 1247800 A1 Div ex EP 1998-917048 19980323, EP 2002-10124 19980323; EP 975582 B1 EP 1998-917048 19980323, WO 1998-EP1670 19980323, Related to EP 2002-10124 19980323; DE 59806191 G DE 1998-506191 19980323, EP 1998-917048 19980323, WO 1998-EP1670 19980323; ES 2183345 T3 EP 1998-917048 19980323; MX 209911 B WO 1998-EP1670 19980323, MX 1999-8912 19990928

FDT AU 9870399 A Based on WO 9845251; EP 975582 A1 Based on WO 9845251; US 6107518 A Based on WO 9845251; BR 9809063 A Based on WO 9845251; US 6207010 B1 Div ex US 6107518; JP 2001519792 W Based on WO 9845251; EP 1247800 A1 Div ex EP 975582; EP 975582 B1 Related to EP 1247800, Based on WO 9845251; DE 59806191 G Based on EP 975582, Based on WO 9845251; ES 2183345 T3 Based on EP 975582

PRAI DE 1997-19713911 19970404

IC ICM C07C227-08; C07C229-00; C07C229-24; D21C003-20  
ICS C07C227-06; D21C009-10

AB DE 19713911 A UPAB: 19981210  
Preparation of **imino-disuccinic acid** alkali metal salts (I) involves: (i) reacting maleic anhydride (MA), alkali metal hydroxide (AMH), ammonia and water, in MA:AMH:NH<sub>3</sub>:H<sub>2</sub>O molar ratio of 2:0.1-4:1.1-6:5-30, at 70-170 deg. C and 1-80 bars for 0.1-100 hrs.; (ii) distilling off NH<sub>3</sub> and water from the reaction mixture, with addition of water and 0-4 mol. AMH per 2 mols. MA initially used, at 50-170 deg. C and 0.1-50 bars over 0.1-50 hours, and (iii) adding water in an amount such that the obtained solution has a solids content of 5-60 weight%.

USE - The use of (I) obtained as above is claimed for increasing the whiteness and brightness of vegetable fibres in papermaking, (I) specifically being used in pretreatment before bleaching or in oxidative or preferably reductive bleaching. More generally (I) are biodegradable complexing agents for alkaline earth and heavy metals, for use in the fields of detergents, cleaning agents, pharmaceuticals, cosmetics, agriculture, electroplating, building materials, textiles and paper, especially as water softeners, bleaching agent **stabilisers**, trace nutrient fertilisers and setting retarders.

ADVANTAGE - (I) is obtained in high yield (i.e. over 65%, generally over 74%) by an industrially applicable, economical, environmentally friendly process suitable for discontinuous or continuous use. MA conversion is over 93% (generally over 98%). The product is a **light yellow, stable, odourless, NH<sub>3</sub>-free solution** having a high (I) content, low alkaline earth and heavy metal content and high complexing power. By-products such as maleic, fumaric, malic or aspartic acid or their salts do not affect the complexing power or biodegradability.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B05-A01A; C05-A01A; B05-A01B; C05-A01B; B10-B02J; C10-B02J; B14-R01; C14-R01; D08-B; D11-A01A; D11-B01; E10-B02D8; F05-A02B; F05-A06D; M11-B

=> d all abeq tech abex tot l63



AN 2003-383253 [37] WPIX  
DNC C2003-102004  
TI Chitosan is used for **stabilization** of cosmetic or dermatological skin-care formulation in form of emulsion, hydrodispersion, oleodispersion, hydrogel or oleogel.  
DC A96 D21  
IN KROEPKE, R; NIELSEN, J  
PA (BEIE) BEIERSDORF AG  
CYC 1  
PI DE 10145111 A1 20030403 (200337)\* 16 A61K007-00 <--  
ADT DE 10145111 A1 DE 2001-10145111 20010913  
PRAI DE 2001-10145111 20010913  
IC ICM A61K007-00  
ICS A61K007-48  
AB DE 10145111 A UPAB: 20030612  
NOVELTY - The use of chitosan is claimed for producing or increasing the **stability** of cosmetic formulations in the form of oil/water (O/W, W/O, W/O/W or O/W/O emulsions, hydrodispersions, oleodispersions, hydrogels or oleogels.  
USE - The products are cosmetic or dermatological formulations containing agents for protecting sensitive skin from irritation.  
ADVANTAGE - Cosmetic emulsions normally contain surfactant as emulsifier but some surfactants cause allergies or photodermatitis. Also, the **stability** of emulsions, especially oil/water (O/W) emulsions, is often impaired by relatively high electrolyte concentrations and heavy metals. Using chitosan increases the **stability** and biocompatibility.  
Dwg.0/0  
FS CPI  
FA AB  
MC CPI: A10-E09; A12-V04C; D08-B09A; D09-E  
TECH UPTX: 20030612  
TECHNOLOGY FOCUS - POLYMERS - Preferred Composition: The formulations contain 0.01-10, especially 0.05-3.0 wt.% chitosan(s).  
ABEX UPTX: 20030612  
EXAMPLE - A cosmetic formulation had the composition (weight%) glyceryl stearate citrate (2), myristyl myristate (1), stearyl alcohol (2), cetyl alcohol (1), hydrogenated coco glycerides (2), butylene glycol dicaprylate/dicaprate (1), ethylhexyl cocoate (3), Vaseline (RTM; 4), dicaprylyl ether (1), ethylhexyl methoxycinnamate (3), bis-ethylhexyloxyphenol-methoxyphenyltriazine (1), ubiquinone (Q10; 0.05), alpha-glucosylrutin (0.5), chitosan (0.5), **iminodisuccinate** (0.1), phenoxyethanol (0.3), alkyl p-hydroxybenzoate (paraben; 0.5), diazolidinylurea (0.25), iodopropynyl butyl carbamate (0.1), denatured ethanol (1), xanthan gum (0.1), polyacrylic acid (carbomer; 0.2), glycerol (8), water and/or oil-soluble dyes (0.05), perfume (as required) and water (to 100).  
L63 ANSWER 2 OF 7 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
AN 2003-049304 [05] WPIX  
DNC C2003-012986  
TI Prevention of crystallization in solution of L-ascorbyl magnesium phosphate useful as antioxidant, involves addition of amino acid and/or its salt, alkanolamine and organic chelating agent.  
DC B03 D21 E19  
PA (NIKK-N) NIKKO CHEM CO LTD; (NIHS) NIPPON SURFACTANT KOGYO KK  
CYC 1  
PI JP 2002226494 A 20020814 (200305)\* 7 C07F009-655  
ADT JP 2002226494 A JP 2001-23258 20010131  
PRAI JP 2001-23258 20010131  
IC ICM C07F009-655  
ICS A61K007-00; A61K007-48; A61K031-665; A61K047-18; A61K047-20; A61K047-24; A61P017-00

AB JP2002226494 A UPAB: 20030121

NOVELTY - A method for preventing crystallization in solution of L-ascorbyl magnesium phosphate, involves addition of agents such as amino-acid and/or its salt alkanolamine and organic chelating agent.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a skin external preparation containing L-ascorbyl magnesium phosphate.

ACTIVITY - Dermatological.

MECHANISM OF ACTION - Antioxidant.

USE - For preventing crystallization in L-ascorbyl magnesium phosphate solution having skin-whitening, anti-oxidant, pigment prevention and skin aging prevention effect.

ADVANTAGE - The addition agent effectively prevents crystallization in L-ascorbyl magnesium phosphate solution.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B05-B01P; B07-A01; B10-B01B; B10-B02J; B10-B03B; B14-N17; B14-R01; B14-S08; D08-B09A1; D08-B09A3; D08-B11; E05-G09A; E07-A01; E10-B01C; E10-B02D6; E10-B03B

TECH UPTX: 20030121

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The amino acid is glycine and hydrochloric acid lysine, alkanolamine is triethanolamine and organic chelating agent is phytic acid, iminodisuccinic acids and/or its salts. 0.01-2.0 weight parts of addition agent is used with respect to L-ascorbyl magnesium phosphate.

ABEX UPTX: 20030121

EXAMPLE - Skin external preparation was formulated by compounding magnesium phospho-L-ascorbate (5.0 weight%), lysine hydrochloride (1.0 weight%),

ethanol (8 weight%) and sufficient amount of water. The formulation was sealed in a container. After sealing each container was left for 3 months at 5, 25 and 45 degrees C. The samples were evaluated for the degree of crystallization. The result showed that the sample did not show any crystal formation when compared to the control (without lysine hydrochloride).

L63 ANSWER 3 OF 7 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2002-600832 [65] WPIX

DNC C2002-169994

TI Cosmetic and dermatological cleansing compositions useful in e.g. shampoos and solid soaps, comprise one or more surfactants and iminodisuccinic acid.

DC D21 E19

IN ARGEMBEAUX, H; BLUCK, M; COUNRADI, K; RUPPERT, S

PA (BEIE) BEIERSDORF AG

CYC 22

PI DE 10100720 A1 20020711 (200265)\* 17 A61K007-50 <--

WO 2002055050 A1 20020718 (200265) GE A61K007-48 <--

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

W: JP US

EP 1351665 A1 20031015 (200368) GE A61K007-48 <--

R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

ADT DE 10100720 A1 DE 2001-10100720 20010110; WO 2002055050 A1 WO 2002-EP98 20020108; EP 1351665 A1 EP 2002-718012 20020108, WO 2002-EP98 20020108

FDT EP 1351665 A1 Based on WO 2002055050

PRAI DE 2001-10100720 20010110

IC ICM A61K007-48; A61K007-50

ICS A61K007-06; C11D017-00

AB DE 10100720 A UPAB: 20021010

NOVELTY - Cosmetic and dermatological cleansing compositions comprise one or more surfactants and iminodisuccinic acid (IDS) or

an IDS salt.

USE - The compositions are useful as cleansing gels and liquids, including shampoos, solid soaps or syndet bars.

ADVANTAGE - The compositions have higher **stability** and better biocompatibility than prior art compositions (no data given).

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D08-B04; D11-C01A; E07-A02H; E10-A09A; E10-A09B8; E10-A22A; E10-B02D5; E10-B02E; E10-C04F

ABEX UPTX: 20021010

SPECIFIC COMPOUNDS - Several specific surfactants are listed in the claims, e.g. sodium acylglutamate, myristoyl sarcosine, sodium/ammonium cocoyl isethionate, sodium dioctyl sulfosuccinate, sodium laureth sulfate, sodium lauryl sulfate, benzalkonium chloride, alkylbetaine, sodium acylamphoacetate and lauryl glucoside.

EXAMPLE - A shower gel comprises (weight %): 27.5 % sodium laureth sulfate solution (48), 33 % cocoamidopropyl betaine solution (5), 25 % sodium cocoyl glutamate solution (5), PEG-40 hydrogenated castor oil (0.5), PEG-100 glyceryl palmitate (0.5), sodium benzoate (0.45), sodium salicylate (0.3), **iminodisuccinic acid** (2), citric acid (0.5), perfume (qs) and water (to 100).

L63 ANSWER 4 OF 7 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2001-475688 [51] WPIX

DNC C2001-142599

TI Microbial composition, for use in industrial products, e.g. crop-protection compositions, comprises bactericidal N-formal(s), fungicide(s), and **stabilizer**(s).

DC C02 D21 D22 D25 E13 H06 H07 P34 P63

IN BEILFUSS, W; GRADTKE, R

PA (SCHU) SCHUELKE & MAYR GMBH; (BEIL-I) BEILFUSS W; (GRAD-I) GRADTKE R; (AIRL) AIR LIQUIDE SANTE INT

CYC 26

PI WO 2001041570 A2 20010614 (200151)\* EN 21 A01N043-80 <--

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

W: BR CN ID JP KR

DE 19961621 A1 20010705 (200151) A01N043-78 <--

US 2001021711 A1 20010913 (200155) A61K031-66 <--

BR 2000016018 A 20020723 (200257) A01N043-80

EP 1239731 A2 20020918 (200269) EN A01N043-80

R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DE 19961621 C2 20021114 (200277) A01N043-78

JP 2003515614 W 20030507 (200331) 24 A01N043-64

CN 1407855 A 20030402 (200345) A01N043-80

EP 1239731 B1 20041027 (200471) EN A01N043-80

R: DE ES FR GB IT

DE 60015387 E 20041202 (200479) A01N043-80

ADT WO 2001041570 A2 WO 2000-IB1823 20001206; DE 19961621 A1 DE

1999-1061621 19991213; US 2001021711 A1 US 2000-734646

20001213; BR 2000016018 A BR 2000-16018 20001206, WO

2000-IB1823 20001206; EP 1239731 A2 EP 2000-978990 20001206

, WO 2000-IB1823 20001206; DE 19961621 C2 DE 1999-1061621

19991213; JP 2003515614 W WO 2000-IB1823 20001206, JP

2001-542755 20001206; CN 1407855 A CN 2000-816184 20001206;

EP 1239731 B1 EP 2000-978990 20001206, WO 2000-IB1823

20001206; DE 60015387 E DE 2000-00015387 20001206, EP

2000-978990 20001206, WO 2000-IB1823 20001206

FDT BR 2000016018 A Based on WO 2001041570; EP 1239731 A2 Based on WO

2001041570; JP 2003515614 W Based on WO 2001041570; EP 1239731 B1 Based on

WO 2001041570; DE 60015387 E Based on EP 1239731, Based on WO 2001041570

PRAI DE 1999-19961621 19991213

IC ICM A01N043-64; A01N043-78; A01N043-80; A61K031-66  
 ICS A01N025-02; A01N033-04; A01N043-40; A01N043-76; A61K007-32;  
 A61K031-425; A61K031-53; A61L002-16; A61L015-44; B27K003-34  
 ICI A01N025:22; A01N043-80, A01N043:40, A01N043:64, A01N043:76, A01N059:00;  
 A01N059:00; A01N043:76; A01N043:64; A01N043:40; A01N043-80;  
 A01N025:22

AB WO 200141570 A UPAB: 20010910

NOVELTY - A microbial composition comprises a bactericidal N-formal(s), a fungicide(s), and a **stabilizer**(s).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a process of preparing the composition comprising adding the components of the composition with the introduction of heat.

USE - For use in industrial products, particularly crop-protection compositions, seed treatment compositions, pack preservatives, cooling lubricant additives, fuel additives or low foam disinfectants. It is also used for controlling cut wounds, parasites and plants; for treating plant cut wounds, as film preservatives, disinfectants in areas where increased fungal attack is to be expected, and as wood preservatives (claimed).

ADVANTAGE - The composition is **stable**, and protects industrial products against bacterial and fungal attack over long service lives. It contributes to long usability and applicability of the products, and do not decompose under practical conditions.

Dwg.0/0

FS CPI GMPI

FA AB; DCN

MC CPI: C05-A01B; C07-D04C; C07-D13; C07-E01; C07-F01; C14-A01; C14-A04;  
 C14-U02; C14-V02; D09-A01C; E05-G03D; E06-D08; E06-F01; E07-D04A;  
 E07-D13B; E07-E01; E07-F01; E10-B01C; E10-B02B; E10-B02D8; E31-C;  
 E31-K06; H06-D; H07-G

TECH UPTX: 20010910

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The bactericidal N-formal is 3,3'-methylene bis(5-methyloxazolidine) or 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol. It is present at a concentration of 1-99 wt.% (preferably 40-90 wt.%). The fungicide is 2-octyl-2H-isothiazolin-3-one, benzisothiazolone, 5-chloro-2-methyl-4-isothiazolin-3-one or 2-methyl-4-isothiazolin-3-one. It is present at a concentration of 0.1-99 wt.% (preferably 5-10 wt.%). The **stabilizer** which has a microbiocidal action is 2-mercaptopyridine N-oxide, metal or ammonium salts of 2-mercaptopyridine N-oxide, metal salt complexes of 2-mercaptopyridine N-oxide, 2,2'-dithiobis(pyridine N-oxide), 2-mercaptobenzothiazole, 2-thiocyanomethyl-thiobenzothiazole, and/or sodium bromate. It is present at a concentration of 0.1-40 wt.% (preferably 5-10 wt.%). The composition further comprises:

- (a) less than 25 wt.% solvents and/or solubility promoters from phenoxyethanol, phenoxypropanol, 1,2-propylene glycol, 1-methoxy-2-propanol, diethylene glycol butyl ether or propylene glycol;
- (b) complexing agent(s) from phosphates and polyphosphates, ethylenediaminetetraacetic acid, nitriloacetic acid, N,N-bis(2-hydroxyethyl)glycine, diethylenetriaminepentaacetic acid, hydroxyethanediphosphonic acid, gluconic acid, hydroxyethylethylenediaminetriacetic acid, polyoxycarboxylic acid, tris(aminomethyl)phosphonic acid, diethylenetriaminepentamethylenephosphonic acid, ethylenediaminetetramethylenephosphonic acid, ethylenediaminedisuccinic acid, ethylenediaminediglutamic acid, **iminodisuccinic acid**, polyaspartic acid or methylglycinediacetic acid, or their salts;
- (c) corrosion-protective agents from phosphonobutanetricarboxylic acid and its salts, derivatives of triazole, e.g. benzotriazole or methylbenzotriazole, 2,2'-((methyl-1H-benzotriazol-1-yl)methyl)imino)bisethanol, N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine or carboxylic acid derivatives, e.g. 5(or 6)-carboxy-4-hexylcyclohex-2-en-1-octanoic acid;
- (d) microbial active ingredients, particularly O-formals;

- (e) additives; and/or
- (f) auxiliaries.

The composition is in the form of a liquid, liquid-viscous, paste, concentrate, or a ready-to-use solution. It is incorporated separately from one another, and is used in concentrations greater than 0.01 wt.% (preferably greater than 0.10 wt.%).

ABEX UPTX: 20010910

EXAMPLE - A mixture of (weight%) Mar 71 N-formal (46.8), Pyrion-Na (13.4) (40% strength in water), Kathon 893 (17), and 1,2-propylene glycol (22.8) was stored at 40 degrees C, and held at 80 degrees C for 1 hour. The effectiveness of test product A was tested 3 years after preparation. The mixture was then incorporated into 4% strength dilute solution of cooling lubricant Almasol EP. Two days after the incorporation, the test batch was infected with inoculation solution (1 ml) twice weekly, and streaked out on agar plates. The microbial growth of the streaks was assessed after incubation for 3 days at 25 degrees C. The effectiveness of the mixture was excellent, and was not impaired as a result of storage.

L63 ANSWER 5 OF 7 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2001-202705 [20] WPIX

DNC C2001-060156

TI Preparing compositions comprising periodic structures consisting of polyelectrolytes sandwiched between lipid aggregates having at least one charged component.

DC B05 B07

IN CEVC, G; HUEBNER, S

PA (IDEA-N) IDEA AG

CYC 94

PI WO 2001010413 A2 20010215 (200120)\* EN 33 A61K009-127 <--

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE  
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000072718 A 20010305 (200130) A61K009-127 <--

JP 2003506398 W 20030218 (200315) 37 A61K048-00

ADT WO 2001010413 A2 WO 2000-EP7546 20000803; AU 2000072718 A

AU 2000-72718 20000803; JP 2003506398 W WO 2000-EP7546

20000803, JP 2001-514933 20000803

FDT AU 2000072718 A Based on WO 2001010413; JP 2003506398 W Based on WO 2001010413

PRAI DE 1999-19936665 19990804

IC ICM A61K009-127; A61K048-00

ICS A61K031-7088; A61K038-00; A61K039-00; A61K047-14; A61K047-18;  
A61K047-20; A61K047-22; A61K047-24; A61K047-26; A61K047-28;  
A61K047-48; A61P001-04; A61P001-16; A61P001-18; A61P003-12;  
A61P005-18; A61P005-38; A61P007-00; A61P007-06; A61P007-10;  
A61P011-00; A61P011-02; A61P011-06; A61P013-12; A61P017-00;  
A61P017-06; A61P019-00; A61P019-02; A61P021-00; A61P025-00;  
A61P025-08; A61P027-02; A61P029-00; A61P031-00; A61P031-22;  
C12N015-09

AB WO 200110413 A UPAB: 20010410

NOVELTY - A new method for preparing pharmaceutical compositions comprising periodic structures consisting of polyelectrolytes sandwiched between lipid aggregates having at least one charged component comprises separately making a suspension of non-periodic, preferably mono- or bilayer like, lipid aggregates, a solution of polyelectrolyte molecules and a solution of oligovalent linkers and mixing them to form the periodic structures.

DETAILED DESCRIPTION - A new method for preparing pharmaceutical compositions comprising periodic structures consisting of polyelectrolytes sandwiched between lipid aggregates having at least one charged component

comprises separately making a suspension of non-periodic, preferably mono- or bilayer like, lipid aggregates, a solution of polyelectrolyte molecules and a solution of oligovalent linkers and mixing them to form the periodic structures. The simultaneous presence of the components catalyses the formation of the periodic structures comprising at least one layer of lipid component associated with a layer of polyelectrolyte molecules.

An INDEPENDENT CLAIM is also included for a kit comprising a bottled or packed of at least one dose of the composition prepared according to the method described above.

ACTIVITY - Antiinflammatory; dermatological; hepatotropic; nephrotropic; respiratory; hemostatic; antianemic; osteopathic; cerebroprotective; nootropic; antithyroid; immunosuppressive; ophthalmological; gastrointestinal; immunomodulator; analgesic; antiasthmatic; antirheumatic; antiallergic; antipsoriatic; vasotropic. No biological tests given.

MECHANISM OF ACTION - None given.

USE - The composition is used to manipulate cells, their metabolism, reproduction or survival. The cells are in a mammal with a disorder or potential disorder and the composition is useful for treating the disorder or preventing the potential disorder as in the case of vaccination. The disorder comprises an inflammatory disease, dermatosis, kidney or liver failure, adrenal insufficiency, aspiration syndrome, Behcet's syndrome, blood disorder, such as cold-hemagglutinin disease, hemolytic anemia, hypereosinophilia, hypoplastic anemia, macroglobulinemia, trombocytopenic purpura, a bone disorder, cerebral edema, Cogan's syndrome, congenital adrenal hyperplasia, connective tissue disorder, such as lichen, lupus erythematosus, polymyalgia rheumatica, polymyositis and dermatomyositis, epilepsy, an eye disorder, such as cataracts, Graves' ophthalmopathy, hemangioma, herpes infection, neuropathy, retinal vasculitis, scleritis, a gastro-intestinal disorder, such as inflammatory bowel disease, nausea and esophageal damage, hypercalcemia, an infection, e.g. of the eye (as in infections mononucleosis), Kawasaki disease, myasthenia gravis, one of pain syndromes, such as postherpetic neuralgia, polyneuropathy, pancreatitis, respiratory disorder, such as asthma, rheumatoid disease or osteoarthritis, rhinitis, sarcoidosis, skin disease, such as alopecia, eczema, erythema multiform, lichen, pemphigus and pemphigoid, psoriasis, pyoderma gangrenosum, urticaria, a thyroid or vascular disorder. The composition is used in or on the mammalian body, preferably as a drug, drug depot or some other kind of device with a desirable medical or biological action. The periodic structures contain oligo- or poly-nucleic acids that are either sense or antisense or else comprise an expressible form of a transgene and are used to deliver the nucleic acids into cells. The transgene expresses antisense RNA. The composition is useful for gene delivery, gene therapy or any other kind of modulation of genetic action or in bioengineering. The transgene encodes a protein selected from a ligand, a receptor, an agonist of a ligand, an agonist of a receptor, an antagonist of a ligand and an antagonist of a receptor. The protein is a soluble protein. A kit comprises, in a bottled or otherwise packaged form, at least one dose of the composition for use in or on a mammal for prophylactic purposes, e.g. in the course of vaccination, or for therapy.

Dwg.0/1

FS CPI

FA AB; DCN

MC CPI: B01-D02; B04-B01B; B05-B01G; B07-H; B10-A09B; B10-A19; B10-A22; B10-B01B; B10-B02B; B10-B04B; B10-D02; B14-C01; B14-C03; B14-C06; B14-E10; B14-F02; B14-F03; B14-G02; B14-G02A; B14-G03; B14-J01; B14-K01; B14-K01A; B14-N01; B14-N03; B14-N10; B14-N11; B14-N12; B14-N17

TECH UPTX: 20010410

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Components: The lipid aggregates originally have the form of multilamellar, preferably unilamellar lipid vesicles or freely suspended or supported lipid monolayers. The polyelectrolytes are selected from poly-deoxyribonucleic

acids, poly-ribonucleic acids and/or their derivatives. The oligovalent linkers are chelators. The average size of plain lipid aggregates is 30-5000 nm., preferably 20-1000 nm., particularly preferably 30-500 nm., most preferably 450-100 nm. The chelator is selected from EDTA, EGTA, EDDA, EDDS (ethylenediamine-N,N'-disuccinic acid), iminodiacetic acid or their salts, DMPS (2,3-dimercaptopropane-1-sulfonic acid), 8-hydroxyquinoline, lipoic acid (thioctic acid), deferoxamine mesilate, polycarboxylate, 2-furildioxime, N-2-hydroxypropyl sulfonic acid aspartic acid, N-carboxymethyl N-2 hydroxypropyl 3 sulfonic acid, beta-alanine N,N diacetic acid aspartic acid, N,N diacetic acid aspartic acid N-monoacetic acid, **iminodisuccinic acid**, is an amino acid based chelating agent, such as isoserine diacetic acid (ISDA), 2-phosphonobutane-1,2,4-tricarboxylic acid, GADS, alkyl iminodiacetic acid, dipicolinic acid, hydroxy-1,1-ethylidene diphosphonic acid (HEDP) or a derivative, or is some other oligo- or poly-anion and cation or any other molecule with several polar, polarizable or otherwise associable groups which often have H bond donors and/or acceptors on them. The cationic anchor belongs to the class of lipids with one or several aliphatic chains or other suitable apolar residues, the former being potentially branched or derivatized, and a head group with one or several positive charges, the head group most often being a monoamine, including ethanolamine, methylamine, dimethylamine and trimethylamine, ethylamine, diethylamine and triethylamine, n-propylamine, n-butylamine, furthermore, methoxyamine, 2-methoxyethylamine and 2-ethoxyethylamine, a diamine, e.g. ethylenediamine, 1,3-diaminopropane, 1,3-diaminobutane, hydrazine, putrescine and cadaverine, a polyamine, e.g. spermine or spermidine, an amide, such as acetamide, propionamide, an isonicotinic acid hydrazide, a semicarbazide. The cationic anchor is preferably selected from N-(1-(2,3-diacyl)-, N-(1-(2,3(dialkyl)- or N-(1-(2,3-dialkenoyl)propyl)-N,N,N-trialkylammonium, -N,N-dialkylammonium or -N-alkylammonium salt, such as N-(1-(2,3-dioleoyloxy)propyl)-N,N,N-trimethylammonium bromide (DOTMA), 1,2-diacyloxypropyl-N,N-dialkyl-hydroxyalkyl ammonium salt, 1,2-dialkenoyloxypropyl-N,N-dialkyl-hydroxyalkyl ammonium salt or -N,N-alkyl-hydroxyalkyl or N,N,N-alkyl-dihydroxyalkyl, such as 1,2-dimyristyloxypropyl-N,N-dimethyl-hydroxyethyl ammonium bromide (DMRIE), (N-(N',N'-dialkylaminoethane) carbamoyl) cholesterol, such as (N-(N',N'-dimethylaminoethane) carbamoyl) cholesterol (DC-Chol), or (N-N'-alkylaminoethane) carbamoyl) cholesterol, dialkylamidoglycyl spermine or spermidine such as dioctadecylamidoglycyl spermidine (DOGS), diacyl, dialkenoyl or dialkyl diacylammonium or acylammonium salt, such as dimethyl dioctadecylammonium bromide (DDAB), 2,3-diacyl-, 2,3-dialkenoyl- or 2,3-dialkyl-N-(2(sperminecarozamide-0-ethyl)-N,N-dialkyl- or N-alkyl-1-propanaminium trifluoroacetate, such as 2,3-dioleoyloxy-N-(2(sperminecarozamide-0-ethyl)-N,N-dimethyl-1-propanaminium trifluoroacetate (DOSPA), a 1-(2-(alkenoyloxy)-ethyl)-2-alkenoyl-3-(2-hydroxyalkyl) imidazolinium salt, such as 1-(2-(oleoyloxy)-ethyl)-2-oleyl-3-(2-hydroxyethyl) imidazolinium chloride (DOTIM), 1,2-dialkenoyloxy-3-(trialkylammonio)- or (dialkylammonio)- or alkylammonio-propane, such as 1,2-dioleoyloxy-3-(trimethylammonio) propane (DOTAP), 1,2-diacyl-3-trimethylammonium propane (TAP), 1,2-diacyl-3-dimethylammonium propane (DAP) or 1,2-diacyl-3-methylammonium propane (MAP) and fatty acid salts of quaternary amines. The anionic anchor carries a carboxylate, succinate, sulfosuccinate, sulfate, sulfonate, ether sulfate, phosphate, phosphonate or amine oxide, or other anionic substances which also appear in anionic linkers, with some preference for long-chain fatty acid derivatives, alkylsulfate-, phosphate or phosphonate salts, cholate-, deoxycholate-, glycodeoxycholate-, taurodeoxycholate-salts, dodecyl- dimethyl-aminooxides, especially lauroyl- or oleoylsulfate-salts, sodium deoxycholate, sodium glycodeoxycholate, sodium oleate, sodium elaidate, sodium linoleate, sodium laurate or sodium myristate.

Preferred Method: The formation of the structures does not take place or proceeds at least 10 times less rapidly if any of the components is left out. Polar lipids are used to form lipid aggregates. A suspension of lipid

aggregates and a polyelectrolyte solution are mixed to form a relatively stable suspension in a solution and oligovalent linkers, preferably in a solution, are added to start or control the formation of the periodic structures. The periodic structures are suspended or remain suspended in the supporting solution after their formation. The concentration of at least one of the system components and/or the respective relative concentrations are used to control the speed of formation and/or the final size and/or the degree of periodicity for the structures generated in the system. The lipid (or lipoid) stems from a biological source or is made synthetically, directly or by modifying the former lipid, and advantageously comprises a glyceride, glycerophospholipid, isoprenoid lipid, sphingolipid, steroid, sterine or sterol, a sulfur- or carbohydrate-containing lipid or any other lipid which forms bilayers, in particular a half-protonated fluid fatty acid, and very frequently a phosphatidylcholine, phosphatidylethanolamine, phosphatidylglycerol, phosphatidylinositol, a phosphatidic acid, a phosphatidylserine, a sphingomyelin or sphingophospholipid, glycosphingolipid (e.g. cerebroside, ceramidpolyhexoside, sulfatide, sphingoplasmalogene), a ganglioside or any other glycolipid or a synthetic lipid, in particular with oleoyl-, linoleyl-, linolenyl-, linolenoyl-, arachidoyl-, lauroyl-, myristoyl-, palmitoyl-, stearoyl chains, which can also be attached to the corresponding sphingosine base, is a glycolipid or any other diacyl-, dialkenoyl, dialkyl-lipid or branched aliphatic chain-lipid with two identical or mixed chains. The concentration of charged anchors used in the mixing process relative to the concentration of the lipids that form basic aggregates is 1-80 mol.%, preferably 10-60 mol.%, particularly preferably 20-50 mol.%, the specific chosen value also depending on the selected polyelectrolyte concentration, higher concentrations of latter ingredient typically requiring higher relative concentration of charged anchor molecules. The total lipid concentration, including charged anchors and basic lipids in the aggregates is 0.0005-30 wt.%, preferably 0.001-20 wt.%, more preferably 0.01-15 wt.%, particularly preferably 0.05-10 wt.%. The bulk polyelectrolyte concentration is 0.0005-30 wt.%, preferably 0.001-20 wt.%, more preferably 0.01-15 wt.%, particularly preferably 0.05-10 wt.%. The specific total lipid concentration and polyelectrolyte concentration values are chosen so as to ensure that the resulting periodic structures carry less than 50% of the original charge density and preferably less than 25% of residual charge. The concentration and composition of background electrolyte is chosen so as to maximize the positive effect of charge-charge interactions on the association and normally is below  $I = 1$ , preferably below 0.5 and particularly preferably 0.01-0.3. The formation of (mixed) lipid suspension is induced by substance addition into the fluid phase, evaporation from a reverse phase, by using an injection- or a dialysis procedure, with the aid of mechanical stress, such as shaking, stirring, vibrating, homogenization, ultrasonication, shear, freezing and thawing or filtration using convenient driving pressure. The lipid(s) and charged anchor molecules are separately mixed, if required in an organic solution which is eliminated in due time, and the resulting suspension is combined with the solution of polyelectrolytes and the chosen linkers solution under the action of mechanical energy. The starting suspension of lipid aggregates is generated or the final mixing is achieved by filtration, suitably elevated pressure or velocity homogenization, shaking, stirring, mixing or any other controlled mechanical fragmentation. The formation of aggregate with desired size is ensured by filtration, the filtering material having pores sizes 0.02-0.8 microm, very frequently 0.05-4 microm, most frequently 0.08-0.2 microm, several filters being potentially used in a row or sequentially. The formulation of periodic structures is prepared just before the application, preferably from a concentrate or lyophilisate.

Preferred Products: The final size, which for spherical structures corresponds to diameter, of the suspended periodic structures is 10 nm -10 microm, preferably 20 nm - 2.5 microm, more preferably 30-600 nm,



particularly preferably 40-350 nm, most preferably 50-200 nm. The final number of periods in the structure is 2-100, preferably 4-50, particularly preferably 8-25.

L63 ANSWER 6 OF 7 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
 AN 2001-169950 [18] WPIX  
 DNC C2001-051023  
 TI Shampoo compositions containing gamma-oryzanol and one or more calcium salts, along with a complexing agent; are **stabilized** and also prevent oxidative processes in the hair and scalp.  
 DC B01 D21  
 IN ARGEMBEAUX, H; KOLLER, A  
 PA (BEIE) BEIERSDORF AG  
 CYC 25  
 PI DE 19934385 A1 20010125 (200118)\* 8 A61K007-06 <--  
 EP 1074239 A1 20010207 (200118) GE A61K007-06 <--  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI  
 EP 1475073 A2 20041110 (200473) GE A61K007-06 <--  
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE  
 ADT DE 19934385 A1 DE 1999-1034385 19990722; EP 1074239 A1 EP  
 2000-115621 20000720; EP 1475073 A2 Div ex EP 2000-115621  
 20000720, EP 2004-102814 20000720  
 FDT EP 1475073 A2 Div ex EP 1074239  
 PRAI DE 1999-19934385 19990722  
 IC ICM A61K007-06  
 ICS A61K007-50  
 AB DE 19934385 A UPAB: 20010402  
 NOVELTY - A hair cleansing composition contains gamma-oryzanol and one or more calcium salts selected from calcium pantothenate, calcium chloride and calcium lactate. The concentration of free polyvalent metal ions is less than 0.004 M.  
 USE - The gamma-oryzanol/calcium salt protects both the composition and the hair and scalp against oxidative processes. It is useful in shampoos or two-in-one shampoo/conditioners.  
 ADVANTAGE - The composition is **stable** over long periods.  
 Any smell produced by the free polyvalent metal ions is masked by the complexing agent.  
 Dwg.0/0  
 FS CPI  
 FA AB; DCN  
 MC CPI: B01-D02; B05-A01B; B05-C07; B10-A22; B10-B01B; B10-B02J; B10-C04D;  
 B10-C04E; B14-N17; B14-R02; B14-S08;  
 D08-B04; D08-B09A  
 TECH UPTX: 20010402  
 TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The composition may further comprise a complexing agent (0.02-2.00 (preferably 0.05-1.0) wt. % of the composition) selected from ethylenediaminetetraacetic acid and/or **iminodisuccinic acid**. The amount of gamma-oryzanol is preferably 0.001-5.0 (0.01-2.0) wt. %, while that of calcium salt is 0.001-0.05 (preferably 0.02-0.05) wt. %. The composition may also contain surfactants and/or cosmetic and dermatological additives.  
 ABEX UPTX: 20010402  
 EXAMPLE - A pearlized shampoo was made using the following ingredients (weight %): polyquaternium-10 (0.5); sodium laureth sulfate (9.0); cocoamidopropylbetaine (2.5); pearlizing agent (2.0); gamma-oryzanol (0.01); calcium lactate (0.015); disodium EDTA (0.1); trace amounts of preservative, perfume, thickener, pH adjusting agents and solubility modifier, and water (up to 100 weight %).  
 L63 ANSWER 7 OF 7 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
 AN 2000-340651 [30] WPIX

DNC C2000-103522  
 TI Production of aspartic acid derivatives useful as metal complexing agents, involves processing of crude aspartic acid solution obtained by fermentation.

DC B05 C01 C03 D15 D16 D21 E12 E16 F06 F09  
 IN GROTH, T; JOENTGEN, W; MUELLER, N; SCHWAMBORN, M; WENDT, H  
 PA (FARB) BAYER AG  
 CYC 91

PI DE 19850359 A1 20000504 (200030)\* 6 C12P013-04 <--  
 WO 2000026398 A1 20000511 (200031) GE C12P013-20 <--  
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
 OA PT SD SE SL SZ TZ UG ZW  
 W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES  
 FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS  
 LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL  
 TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 9963415 A 20000522 (200040) C12P013-20 <--  
 EP 1127153 A1 20010829 (200150) GE C12P013-20 <--  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI

JP 2002528131 W 20020903 (200273) 20 C12P013-04

ADT DE 19850359 A1 DE 1998-1050359 19981102; WO 2000026398 A1  
 WO 1999-EP7948 19991020; AU 9963415 A AU 1999-63415  
 19991020; EP 1127153 A1 EP 1999-950763 19991020, WO  
 1999-EP7948 19991020; JP 2002528131 W WO 1999-EP7948 19991020  
 , JP 2000-579770 19991020

FDT AU 9963415 A Based on WO 2000026398; EP 1127153 A1 Based on WO 2000026398;  
 JP 2002528131 W Based on WO 2000026398

PRAI DE 1998-19850359 19981102

IC ICM C12P013-04  
 ICS C07C227-18; C07C229-12; C07C229-24

ICA C12P007-46; C12P013-20

ICI C12P007-46; C12R001:845

AB DE 19850359 A UPAB: 20000624

NOVELTY - A crude aspartic acid solution obtained by fermentation is converted into aspartic acid derivatives (I) by treatment with alkali metal hydroxide, concentration with distillative removal of ammonia water and subsequent chemical substitution.

DETAILED DESCRIPTION - The production of aspartic acid derivatives (I) and their mixtures comprises:

- (1) fermentation of carbohydrates in the presence of fumaric acid-producing microorganisms;
- (2) purification of the resulting fumaric acid-containing fumaric acid-containing fermentation solution;
- (3) enzymatic conversion of the fumaric acid ammonium salt solution obtained into a crude aspartic acid solution; and
- (4) treatment of the crude aspartic acid solution with an alkali metal hydroxide, concentration with distillative removal of ammonia water and either reaction with unsaturated mono- or dicarboxylic acids or their salts, epoxides, epoxyalcohols, epoxyacids or their salts, alkyl halides, haloalkanoic acids or their salts or cyanomethylation and subsequently saponification.

R1 = H, Na, K, NH<sub>4</sub>, Ca, Mg, Li or Fe;  
 R2 = -CH(COOR<sub>1</sub>)-CH<sub>2</sub>-COOR<sub>1</sub>, -CH(COOR<sub>1</sub>)-CH(OH)-COOR<sub>1</sub>,  
 -CH<sub>2</sub>-CH<sub>2</sub>-NH-CH(COOR<sub>1</sub>)-CH<sub>2</sub>-COOR<sub>1</sub>, -CH<sub>2</sub>-COOR<sub>1</sub>, -CH<sub>2</sub>-CH<sub>2</sub>-COOR<sub>1</sub>, -CH<sub>2</sub>-CH<sub>2</sub>-OH,  
 -CH<sub>2</sub>-CH(OH)-CH<sub>3</sub> or -CH<sub>2</sub>-CH(OH)-CH<sub>2</sub>OH;  
 R3 = H; -CH<sub>2</sub>-COOR<sub>1</sub>, -CH<sub>2</sub>-CH<sub>2</sub>-COOR<sub>1</sub>, -CH<sub>2</sub>-CH<sub>2</sub>-OH, -CH<sub>2</sub>-CH(OH)-CH<sub>3</sub> or  
 -CH<sub>2</sub>-CH(OH)-CH<sub>2</sub>OH.

USE - (I) are complexing agents for alkaline earth and heavy metal ions. They can be used in washing and cleaning agents, in agriculture and in the pharmaceutical, cosmetic, textile, paper, construction and electroplating industries. They are especially suitable as water softeners, bleach stabilizers, trace nutrient fertilizers and

setting retarders.

ADVANTAGE - The use of crude aspartic acid solution is cost effective and environmentally friendly compared with the use of pure aspartic acid required in the processes known from JP5320109, JP8012631, JP5170714 and DE4024552. (I), which are biodegradable, are obtained in high quality and yields which range e.g. from 86.2-95 %,

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: B10-B01B; B10-B02H; B10-B02J; C10-B01B; C10-B02H; C10-B02J; C14-T; D04-A01; D04-A03A; D05-A02; D05-A04; D05-C; D08-B; E05-A; E05-B01; E05-L02A; E10-B01C; E10-B02D4; E10-B02D5; F03-J03; F05-A06

TECH UPTX: 20000624

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Process: The solution used in stage (4) (obtained according to WO9816652) contains the aspartic acid as its ammonium salt and is preferably treated with sodium hydroxide. After concentration, the concentrate is preferably reacted with maleic, epoxysuccinic, chloroacetic or bromoacetic acid or their salts, 1,2-dichloroethane or 1,2-dibromoethane, or formaldehyde and NaCN. Preferred Products: The process is especially suitable for the production of **iminodisuccinic acid**, hydroxyiminodisuccinic acid, ethylenediamine disuccinic acid, aspartic acid N,N-diacetic acid, aspartic acid N,N-dipropionic acid, N,N-dihydroxyethylaspartic acid, N,N-di-(2-hydroxypropyl)aspartic acid and N,N-di-(2,3-dihydroxypropyl)aspartic acid as well as their salts.

ABEX UPTX: 20000624

EXAMPLE - A S-aspartic acid monoammonium salt solution (0.5 l; 555 g) from a fermentation carried out according to WO9816652 is treated with 50 % aqueous NaOH (160 g). Ammonia water (415 g) is distilled off and the concentrate is treated with disodium maleate solution (258 g; prepared from maleic anhydride and 50 % NaOH). Water (58 g) is distilled off and the mixture is stirred at 110 degrees C for 12 hours, then treated with water (250 ml) and distilled to remove ammonia water (50 ml). Water (50 ml) is added and the solution is cooled to room temperature and filtered as required. The product contains S,S and S,R-**iminodisuccinic acid** Na4 salt (38.7 weight%; 86.2 % yield).

=> => d all abeq tech abex tot l64

L64 ANSWER 1 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-491688 [46] WPIX

CR 2003-038344 [03]

DNC C2003-131295

TI Light duty liquid composition for cleaning, e.g. tiled walls, comprises water soluble surfactant, ethoxylated alkyl ether sulfate, sulfate or sulfonate anionic surfactant polyethylene glycol, and inorganic magnesium salt.

DC A25 A97 D25 E12 E16

IN DRAPIER, J; MERTENS, B

PA (COLG) COLGATE PALMOLIVE CO

CYC 101

PI US 6511955 B1 20030128 (200346)\* 6 C11D007-08

WO 2003050217 A1 20030619 (200350) EN C11D001-83

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU

MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK

DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR

KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT

RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

AU 2002364519 A1 20030623 (200420) C11D001-83

EP 1468066 A1 20041020 (200469) EN C11D001-83

R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC

MK NL PT RO SE SK TR

ADT US 6511955 B1 CIP of US 2001-16344 20011210, US 2002-225725  
20020822; WO 2003050217 A1 WO 2002-US38591 20021204; AU 2002364519 A1 AU  
2002-364519 20021204; EP 1468066 A1 EP 2002-799896 20021204, WO  
2002-US38591 20021204

FDT US 6511955 B1 CIP of US 6455481; AU 2002364519 A1 Based on WO 2003050217;  
EP 1468066 A1 Based on WO 2003050217

PRAI US 2002-225725 20020822; US 2001-16344  
20011210

IC ICM C11D001-83; C11D007-08  
ICS C11D003-02; C11D003-022; C11D003-33; C11D003-333; C11D003-37;  
C11D003-377

AB US 6511955 B UPAB: 20041027

NOVELTY - A light duty liquid composition comprises (weight%) alkali metal salt of anionic sulfonate surfactant (10-30), alkali metal salt of ethoxylated alkyl ether sulfate (2-10), polyethylene glycol (0.1-6), nonionic surfactant (1-14), inorganic magnesium salt (0.1-5), 2-bromo-2-nitro propane-1,3-diol (0.001-0.4) as preservative, trialkali sodium salt of ethylene diamine N,N-disuccinate (0.01-0.3), and water (balance).

DETAILED DESCRIPTION - A light duty liquid composition comprises (weight%) alkali metal salt of anionic sulfonate surfactant (10-30), alkali metal salt of 8-18C ethoxylated alkyl ether sulfate (2-10), polyethylene glycol (0.1-6), nonionic surfactant (1-14), inorganic magnesium salt (0.1-5), 2-bromo-2-nitropropane-1,3 diol (0.001-0.4), trialkali sodium salt of ethylene diamine N,N-disuccinate (0.01-0.3), and water (balance). The composition does not contain gluconic acid, ethylene diamine tetraacetate sodium salt, isothiazolones, 1,3-dimethylol-5-dimethylhydantoin, 5-bromo-5-nitro-1,3 dioxane, **imino disuccinate**-sodium salt, any abrasive, silica, alkaline earth metal carbonates, more than 3 weight% fatty acid or its salt, and a grease release agent.

USE - Used as cleaning composition for hard surfaces, e.g. painted woodwork and panels, tiled walls, wash bowls, bathtubs, linoleum or tile floors, or washable wall paper.

ADVANTAGE - The cleaning composition has improved preservative system, has high foaming and cleaning properties, and imparts mildness to the skin. It is effective in removing grease soil and/or bath soil while leaving unrinsed surfaces with shiny appearance.

Dwg. 0/0

FS CPI

FA AB; DCN

MC CPI: A05-H03; A12-W12B; D11-A01B; D11-A01F1; D11-A01F2; D11-A03; D11-A03A; D11-A05; D11-A07; D11-B14; D11-B19; D11-B22; E07-A02D; E10-A09A; E10-A09B4; E10-A09B5; E10-B01C; E10-E04J; E10-E04M1; E10-E04M3; E34-B; E34-B03

ABEX UPTX: 20030719

EXAMPLE - A cleaning composition was prepared and comprised of (weight% 14-16C paraffin sulfonate sodium (25), AEOS (sic):ethylene oxide at 2:1 ratio (4), polyethylene glycol (1), magnesium sulfate (1), nonionic 9-11C ethylene oxide (4.5), sodium-3-N,N'-disuccinate (0.86), 2-bromo-2-nitropropane-1,3-diol (0.025), and water (balance). The composition exhibited a Brookfield viscosity of 180 m Pas, has fine appearance at room temperature and at 4degreesC.

L64 ANSWER 2 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-421125 [39] WPIX

DNN N2003-336453 DNC C2003-110796

TI Biodegradable additive composition useful in fracturing subterranean formations during hydrocarbon recovery operations, comprises water, and chelants.

DC A97 E12 E19 H01 L01 Q49

IN CREWS, J B

PA (CREW-I) CREWS J B; (BAKO) BAKER HUGHES INC  
CYC 101  
PI WO 2003025340 A1 20030327 (200339)\* EN 23 E21B043-26  
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU  
MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW  
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK  
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT  
RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW  
US 2003119678 A1 20030626 (200343) C09K007-00  
EP 1427910 A1 20040616 (200439) EN E21B043-26  
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC  
MK NL PT RO SE SI SK TR  
NO 2004001123 A 20040318 (200444) E21B043-26  
AU 2002336542 A1 20030401 (200452) E21B043-26  
ADT WO 2003025340 A1 WO 2002-US29318 20020916; US 2003119678 A1  
Provisional US 2001-323572P 20010919, US 2002-238072 20020909; EP  
1427910 A1 EP 2002-773397 20020916, WO 2002-US29318 20020916; NO  
2004001123 A WO 2002-US29318 20020916, NO 2004-1123 20040318; AU  
2002336542 A1 AU 2002-336542 20020916  
FDT EP 1427910 A1 Based on WO 2003025340; AU 2002336542 A1 Based on WO  
2003025340  
PRAI US 2001-323572P 20010919; US 2002-238072  
20020909  
IC ICM C09K007-00; E21B043-26  
AB WO2003025340 A UPAB: 20030619  
NOVELTY - A biodegradable additive composition comprises (a) water; and  
(b) at least two of the chelants comprising sodium polyaspartate; sodium  
iminodissuccinate; disodium hydroxyethyleneiminodiacetate; sodium  
gluconate; sodium glucoheptonate; sugar alcohols; monosaccharides; and  
disaccharides.  
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a  
method for fracturing a subterranean formation.  
USE - Useful in fracturing subterranean formations during hydrocarbon  
recovery operations.  
ADVANTAGE - The biodegradable additive composition can perform  
multiple functions in a fracturing operation.  
DESCRIPTION OF DRAWING(S) - The figure shows a graph of a crosslink  
stability test of BoraFRAQ 30 (RTM; a gelling agent) at 175 deg. F  
showing the ability of various materials to chelate ferrous iron.  
Dwg.1/4  
FS CPI GMPI  
FA AB; GI; DCN  
MC CPI: A12-W10B; E05-C; E05-L01; E05-M; E07-A02; E10-A07; E10-A20B; H01-C03;  
L01-A08; L01-K02  
TECH UPTX: 20030619  
TECHNOLOGY FOCUS - CHEMICAL ENGINEERING - Preferred Condition: At least  
three of the chelants are included.  
Preferred Function: The chelants improve the characteristics (carbonate or  
sulfate scale inhibition, demulsification, crosslink gel  
stabilization, carbonate or sulfate scale inhibitor, crosslink  
delay and/or enzyme breaker stabilization) of the biodegradable  
fracturing fluid composition.  
Preferred Process: The method for fracturing a subterranean formation  
comprises providing a biodegradable fracturing fluid composition having a  
crosslinker comprising titanate, zirconate or borate crosslinkers and/or  
compounds that can generate these crosslinkers; at least two of the  
chelants comprising sodium polyaspartate; sodium iminodissuccinate;  
disodium hydroxyethyleneiminodiacetate; sodium gluconate; sodium  
glucoheptonate; sugar alcohols; monosaccharides; and disaccharides; water;  
and pumping the fracturing fluid down hole at a pressure that fractures a  
subterranean formation.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Component: At least one of the chelants comprises sodium **iminodisuccinate** and or disodium hydroxyethyleneiminodiacetate; sorbitol, mannitol or xylitol; or saccharides comprising glucose, fructose, mannose, galactose and/or lactose.

Preferred Composition: The biodegradable additive composition further comprises a solvent or surfactant comprising alkyl glycols, alkyl glycol ethers, alkyl pyrrolidones, alkyl succinates, alkyl glutamades, alkyl sarcosinates, alkyl carbonates, monoethanol, alkyl sorbitans or alkyl glucosides.

TECHNOLOGY FOCUS - POLYMERS - Preferred Component: The surfactant can also comprise polyvinylpyrrolidone.

ABEX

UPTX: 20030619

EXAMPLE - A biodegradable additive composition was made comprising sodium gluconate (30.0%); A-5D (RTM: sodium polyaspartate) (18.0%); VP-370 (RTM: **iminodisuccinate**) (2.0%); and water (balance). The chelant was added to a crude oil at 72 degrees F. The percent fractionation of the fluid phase breakout after 1 minute was 84. At 2 minutes, the percent fractionation of the fluid phase breakout was 100.

L64 ANSWER 3 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-402939 [38] WPIX

DNC C2003-107165

TI Surfactant-free cleaning composition for fiber surface, e.g., carpets, comprises water soluble-dispersing agent, water soluble anti-redeposition agent and alkali counter ion(s).

DC A97 D25 E19 P43

IN HAMMOCK, C S

PA (HAMM-I) HAMMOCK C S; (CLEA-N) CLEAN CONTROL CORP

CYC 100

PI WO 2003025107 A1 20030327 (200338)\* EN 28 C11D003-16

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ

NL OA PT SD SE SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK

DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR

KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT

RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

US 2003060384 A1 20030327 (200338) B08B003-00

AU 2002344830 A1 20030401 (200452) C11D003-16

US 6835704 B2 20041228 (200502) D06L001-02

ADT WO 2003025107 A1 WO 2002-US19458 20020619; US 2003060384 A1

Provisional US 2001-322308P 20010914, US 2002-78010 20020219; AU

2002344830 A1 AU 2002-344830 20020619; US 6835704 B2 Provisional US

2001-322308P 20010914, US 2002-78010 20020219

FDT AU 2002344830 A1 Based on WO 2003025107

PRAI US 2002-78010 20020219; US 2001-322308P

20010914

IC ICM B08B003-00; C11D003-16; D06L001-02

ICS B08B003-14; B08B007-00; D06B019-00; D06L001-00

AB WO2003025107 A UPAB: 20030616

NOVELTY - A surfactant-free cleaning composition comprises water soluble-dispersing agent; water soluble anti-redeposition agent; alkali counter ion; water soluble chelating agent; fragrance material; fragrance solubilizing agent; and preservative agent.

USE - The invention is used for cleaning a fiber surface, e.g., carpets and upholstery by applying an aqueous, surfactant-free cleaning composition having a surface tension of at least 38 dynes/cm to a stained or soiled area on the fiber surface (claimed).

ADVANTAGE - The invention promotes higher surface tension when applied to fiber surfaces. It enhances the removal of stains and soil from the carpets and upholstery and prevents redeposition of soil without interfering with the operation of the soil repellent and/or stain

resistant finishes.

Dwg.0/0

FS CPI GMPI

FA AB; DCN

MC CPI: A12-W12A; D11-B03; D11-B06; D11-B11; D11-B14; D11-B19; D11-B22;  
D11-D01; D11-F; E05-G03D; E07-H; E10-A12C2; E10-B01C1; E10-B02D8;  
E10-E04; E10-G02; E10-H01D; E10-J02A2

TECH UPTX: 20030616

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The composition (wt.%) dispersing agent (0.01-10), anti-redeposition agent (0.001-5), chelating agent (0.01-10), fragrance material (0.0001-2), fragrance solubilizing agent (0.05-25) and water (being balance). It further comprises a concentrated aqueous stock solution. Preferred Components: The alkali counter ions can be amine ions. The water soluble chelating agent can be ethylenediaminetetraacetic acid (EDTA), diethylenediaminepentaacetic acid, nitrilotriacetic acid, hydroxyethylenediaminetriacetic acid, **iminodisuccinic acid**, aminotrismethylenephosphonic acid, hexamethylenediaminetetramethylenephosphonic acid and/or diethylenetriaminepetamethylene-phosphonic acid. The fragrance material can be terpene compounds, oxygenated terpene derivatives and/or oxygenated aromatic derivatives. The fragrance solubilizing agent can be alcohols, glycol ethers and/or glycol ether esters of glycol. The preservative agent can be 1,3-dihydroxymethyl-5,5-dimethyl (DMDM) hydantoin, 1,2-benzisothiazolin-3-one, 5-chloro-2-methyl-4-isothiazolin-3-one, 2-methyl-4-isothiazolin-3-one, 3-iodo-2-propylthyl butyl carbamate, phenoxyethanol, 2-bromo-2-nitropropane-1,3-diol, methyl paraben, propyl paraben, isopropyl paraben, butyl paraben, isobutyl paraben, diazolidinyl urea and/or hydroxymethylglycinate.

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: The water-soluble dispersing agent can be polyacrylic acid, polyacrylic acid/maleic acid copolymers, polymethacrylic acid and/or polyaspartic acid. The water-soluble anti-redeposition agent can be polyvinylpyrrolidone, polyvinylbetaine, polyvinyl pyrrolidone/vinyl acetate copolymers, polyvinylpyrrolidone/dimethylaminoethylmethacrylate copolymers, polyvinylpyrrolidone/acrylic acid copolymers, polymethylvinylether/maleic anhydride copolymers and/or polyvinylpyrrolidone-n-oxide.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: The alkali counter ion can be sodium ions, potassium ions, calcium ions, magnesium ions and/or ammonium ions. It maintains a pH of 5-12 in the aqueous composition.

ABEX UPTX: 20030616

EXAMPLE - Sample of surfactant-free aqueous cleaning composition (2500 g) was prepared. H2O (2449.17 g) was put into a beaker and placed it on a mixer and agitated. EDTA (30 g), polyacrylic acid (9.5 g), polyvinylpyrrolidone (2.5 g), and DMDM hydantoin (1.25 g) were incorporated into the H2O under agitation. The resulting mixture was pre-blended for 5 minutes. Separately, ethyl alcohol (7.5 g) and fragrance (0.08 g) were weighed and mixed in a beaker after which the resulting pre-blend was introduced into the original mixture in the beaker. The combined mixture was blended for 10 minutes after which an 8 ounce of sample mixture (2500 ml) was collected and transferred for quality control testing. Other portions of the mixture were collected and introduced into containers. Test samples of cleaning composition were applied to staining agents and were blotted. Results showed that the composition removed all stains.

L64 ANSWER 4 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-278649 [27] WPIX

DNC C2003-072960

TI Liquid detergent concentrates used for producing liquid detergents for cleaning vehicle windscreen or bodywork contain anionic surfactant,

organic builder and optionally monohydric alcohol and alkylene glycol or monoether.

DC A14 A23 A97 D25 E16 E17

IN GEKE, J; GERHARD, R; HEINZE, A; KREY, W; OPITZ, W; STEDRY, B; REHM, G

PA (HENK) HENKEL KGAA

CYC 49

PI WO 2003018735 A1 20030306 (200327)\* GE 29 C11D003-20

RW: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR

W: AU BR BY CA CN HU ID IN JP KR MX NO NZ PH PL RO RU SG SI UA US UZ VN YU ZA

DE 10140725 A1 20030320 (200327) C11D001-83

EP 1421163 A1 20040526 (200435) GE C11D003-20

R: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT RO SE SI SK TR

AU 2002336987 A1 20030310 (200452) C11D003-20

ADT WO 2003018735 A1 WO 2002-EP9222 20020817; DE 10140725 A1 DE

2001-10140725 20010827; EP 1421163 A1 EP 2002-772169 20020817, WO

2002-EP9222 20020817; AU 2002336987 A1 AU 2002-336987 20020817

FDT EP 1421163 A1 Based on WO 2003018735; AU 2002336987 A1 Based on WO 2003018735

PRAI DE 2001-10140725 20010827

IC ICM C11D001-83; C11D003-20

ICS C11D003-33; C11D011-00

AB WO2003018735 A UPAB: 20031120

NOVELTY - Use of liquid detergent concentrate (IA) for producing a liquid detergent (IIA) for cleaning vehicle windscreens by mixing (IA) with water in 2:1 to 1:5 volume ratio is claimed. (IA) contains monohydric alcohol, alkylene glycol, 3 -5 C triol and/or their monoethers, anionic surfactant (III), organic builder, the remaining water and other additives.

DETAILED DESCRIPTION - (IA) contains 35-80 weight% 1-4 carbon (C) monohydric alcohol, 3-25 weight% mono-, di- or tri-(2-3 C)-alkylene glycol, 3 -5 C triol and/or their monoethers, 0.05-1.5 weight% anionic surfactant (III), 0.005-1.5 weight% organic builder (IV) containing nitrogen atoms and carboxyl groups, except EDTA, rest water and other additives.

INDEPENDENT CLAIMS are also included for the following:

(1) use of liquid detergent concentrate (IB) containing 0.5-30 weight% (III) and 0.05-10 weight% (IV), rest water and/or additives and not more than 15 weight% mono- or polyhydric alcohols or their ethers for producing a liquid detergent (IIB) for cleaning vehicle windscreens by mixing (IB) with water in 1:(20-200) volume ratio;

(2) liquid detergent concentrate (IA.1) of composition (IA), excluding nitrilotriacetate (NTA) as organic builder, for producing liquid detergents for cleaning vehicle windscreens;

(3) liquid detergent concentrate (IB.1) of composition (IB), excluding NTA as organic builder, for producing liquid detergents for cleaning vehicle windscreens;

(4) liquid detergents for vehicle windscreen washers prepared by mixing (IA) or (IB) with water in the specified ratio or directly from the components.

USE - Concentrates (IA) and (IB) are used for preparing liquid detergents (IIA) and (IIB); (IIA) and (IIB) are used for cleaning vehicle windscreens; and (IIA) are used especially for cleaning the bodywork of vehicles containing plastics components, especially headlamp covers and/or reflectors of polymethyl methacrylate (all claimed). (IA) is used as winter concentrate and (IB) as summer concentrate. (IIA) and (IIB) are useful for all car windscreen washing systems and in windscreen washers with wide, fan-type or swiveling jets.

ADVANTAGE - Existing liquid detergents for washing vehicle windscreens do not meet all the requirements, e.g. satisfactory cold stability at low temperatures, good cleaning power, satisfactory wetting time, despite wind caused by vehicle, and little tendency to cause



stress cracking of plastics, especially polymethyl methacrylate (PMMA) used for reflectors. The present concentrates and detergents give optimum compliance with these requirements and cause no or less stress cracking corrosion of plastics, especially PMMA.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A04-F06E4; A11-C; A12-T04A; A12-W12B; D11-A03A1; D11-D01B; D11-D07; E10-A09A; E10-B01C; E10-B02D5; E10-B02D8; E10-B02E; E10-C04J2U; E10-E04H; E10-E04J; E10-E04L

TECH UPTX: 20031120

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: Concentrates (IA) and (IB) contain at most 0.005 wt.% glycol ethers of monohydric alcohols with more than 5 carbon (C) in the alkyl group.

Preferred Components: The anionic surfactants are selected from 8-22 C alkyl ether sulfates.

Preferred organic builders are **iminodisuccinic acid**, ethylenediaminedisuccinic acid, polyaspartic acid and their soluble salts.

ABEX UPTX: 20031120

EXAMPLE - A winter concentrate contained 50.0% ethanol (96 %, denatured with methyl ethyl ketone), 7.5 % 1,2-propylene glycol, 40.33% deionized water, 0.35 % 34 % aqueous solution of iminodissuccinate, 1.78 % 28 % aqueous solution of lauryl/myristyl alcohol ether sulfate with 4 ethylene oxide (EO) and 0.04% 60% aqueous solution of acetic acid. This was diluted in 1:2 ratio with tap water. Test strips of polymethyl methacrylate (Plexiglas 8N80(TM)) were dipped in liquid under test at room temperature for 10 seconds, then placed in an open glass and examined after 4 and 24 hours. Up to 10 cycles were carried out. Stress cracking corrosion was determined on the scale = no attack, 2 = minimal attack, 3 = significant attack, 4 = perforation. The rating was 1-2 for the cited composition, compared with 2 or 3 for commercially-available products.

L64 ANSWER 5 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2002-660131 [71] WPIX

DNC C2002-185723

TI Scale inhibitor for warm mineral water, contains alkali metal salts of aspartic acid, **iminodi succinic acid**, and/or poly aspartic acid, and phosphonic acid, phosphinic acid and/or polycarboxylic acid.

DC A97 D15 E19 E37

PA (SAKI) SAKAI KAGAKU KOGYO KK

CYC 1

PI JP 2002102886 A 20020409 (200271)\* 7 C02F005-12

ADT JP 2002102886 A JP 2000-302420 20001002

PRAI JP 2000-302420 20001002

IC ICM C02F005-12

ICS C02F005-00; C02F005-10; C02F005-14

AB JP2002102886 A UPAB: 20021105

NOVELTY - Scale inhibitor comprises alkali metal salts of aspartic acid, **iminodi succinic acid**, and/or poly aspartic acid, and phosphonic acid, phosphinic acid and/or polycarboxylic acid.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for scale prevention method for warm mineral water which involves adding alkali metal salts of aspartic acid, **iminodi succinic acid**, and/or poly aspartic acid, and phosphonic acid, phosphinic acid and/or polycarboxylic acid to warm mineral water (6).

USE - For warm mineral water.

ADVANTAGE - The scale inhibitor effectively prevents adherence of mineral matter dissolved in warm mineral water, to mineral water pumping apparatus. Scale formation is thus effectively avoided.

DESCRIPTION OF DRAWING(S) - The figure shows the sectional drawing of the pumping apparatus.

Warm mineral water 6

Dwg.1/1

FS CPI

FA AB; GI; DCN

MC CPI: A05-F03; A12-W11J; D04-A03A; D04-B10A; E05-A; E05-G03C; E10-B02D5;  
E10-B02D8

ABEX UPTX: 20021105

EXAMPLE - Aqueous scale inhibitor solution containing (in weight%) polysodium aspartate (5) and 2-phosphonobutane tricarboxylic acid-1,2,4-tetrasodium salts (1) was prepared. Warm mineral water was pumped up on the surface of the earth through a pumping pipe. An air pipe was provided inside the pumping pipe and the scale inhibitor was injected into the air pipe. Warm mineral water of sufficient quantity was pumped up. Even after 90 days only reduced scaling was observed in the air pipe outer surface.

L64 ANSWER 6 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2002-610258 [66] WPIX

DNN N2002-483271 DNC C2002-172725

TI Preventing or minimizing ammonia odor produced by degradation of urea in body fluids involves using a urease inhibitor comprising a complex formed from a polyanionic chelating agent and a divalent metal ion.

DC D22 D25 E12 F06 F07 P14 P34

IN NARINX, E P J; STODDART, B

PA (PROC) PROCTER &amp; GAMBLE CO

CYC 98

PI EP 1214878 A1 20020619 (200266)\* EN 14 A01K001-015

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI TR

WO 2002047472 A1 20020620 (200266) EN A01K001-015

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK  
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO  
RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2002029094 A 20020624 (200267) A01K001-015

US 2003220211 A1 20031127 (200378)# C11D003-50

JP 2004515292 W 20040527 (200435) 45 A61L009-01

ADT EP 1214878 A1 EP 2000-870301 20001215; WO 2002047472 A1 WO

2001-US48942 20011213; AU 2002029094 A AU 2002-29094 20011213

; US 2003220211 A1 Cont of WO 2001-US48942 20011213, US

2003-459866 20030612; JP 2004515292 W WO 2001-US48942 20011213,

JP 2002-549061 20011213

FDT AU 2002029094 A Based on WO 2002047472; JP 2004515292 W Based on WO  
2002047472

PRAI EP 2000-870301 20001215; US 2003-459866  
20030612

IC ICM A01K001-015; A61L009-01; C11D003-50

ICS A61F013-15; A61F013-49; A61L015-46; C05F003-00; C05G003-08;  
C09K003-00; C11D003-33; C11D009-44

AB EP 1214878 A UPAB: 20021014

NOVELTY - Ammonia odor produced by degradation of urea in body fluids is prevented or minimized by contacting a urease inhibitor comprising a complex formed from a polyanionic chelating agent and a divalent metal ion with the urea-containing body fluids.

DETAILED DESCRIPTION - Preventing or minimizing of ammonia odor produced by degradation of urea in body fluids involves contacting a urease inhibitor with the urea-containing body fluids. The urease inhibitor comprises a complex formed from a polyanionic chelating agent and a divalent metal ion. The metal ion is complexed at 4-6 coordination sites leaving one coordination site available for binding with urease. The complex has a **stability** constant K so that the log(10) K is greater than 12.5.

INDEPENDENT CLAIMS are also included for the following:

(1) A composition for preventing or minimizing ammonia odor produced by degradation of urea in body fluids comprising a urease inhibitor and delivery agent for delivering the urease inhibitor complex into contact with urea-containing body fluid or its residues.

(2) An article for preventing or minimizing ammonia odor in body fluids comprising urease inhibitor and delivery device.

USE - For preventing or minimizing ammonia odor produced by degradation of urea in body fluids, e.g. urine or sweat. The article to be treated may be a sweatband, sock, underwear, bed sheet, mattress cover, pillow case, hand or bath towel, underarm pad, surgical gown or drape, wiping cloth, carpet, brush, mop or paper towel (all claimed). The complex can treat animal waste in the form of low odor fertilizer, which can **stabilize** the treated fertilizer material with respect to its nitrogen content.

ADVANTAGE - The complexes effectively prevent or minimize odor produced by degradation of ureas in secreted or excreted body fluids and/or residues of the body fluids.

Dwg.0/0

FS CPI GMPI

FA AB; DCN

MC CPI: D09-A01; D09-B; E05-L02; E05-L03B; E11-Q02; F03-C; F05-A06D

TECH UPTX: 20021014

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The chelating agent is an amine-based chelating agent. The delivery agent comprises a liquid carrier or a solid, preferably granular, carrier. The chelating agent is preferably nitrilotriacetic acid, **iminodisuccinic acid** or substituted ethylenediamine material of formula (I)

$R(CH_2COOH)N-(CH_2)_2-N-(CH_2COOH)_2$  (I)

R = organic moiety which does not form a coordination link with heavy metal ion to be chelated.

The urease inhibitor complex is preferably copper N-(2-(hydroxyethyl)ethylenediamine triacetate. It may contain pentadentate chelant complex formed by chelating copper with N-hydroxyethyl-ethylenediamine-triacetic acid or **iminodisuccinic acid**

Preferred Composition: The composition contains 0.1-10 wt.% urease inhibitor complex, 0.1-5 wt.% deterative surfactant and/or 0.1-8 wt.% detergent builder. It can be in the form of pet litter or **stabilized** animal waste-based fertilizer. The urease inhibitor complex is reactive with siliceous hard surfaces or fabric upon contact of the substrate. It is rendered reactive with the fabric via heterocyclic nitrogen moiety. The complex may be covalently bonded to a cellulosic substrate via reaction with a bis-epoxy compound. The divalent metal ion is copper, iron, zinc, cobalt or nickel.

Preferred Method: The urease inhibitor complex is delivered to the surfaces of the substrate via the composition in liquid form. The liquid composition is sprayed in fine droplets onto the surfaces. The urease inhibitor complex is modified to render it substantive to a substrate upon contact of the composition with the surface.

ABEX UPTX: 20021014

EXAMPLE - Paper towel sheets were treated with both urea solution and urease solution. One of the sheets had served as reference sheet and the other sheet was treated with urease solution containing a complex of copper chelated with N-(2-hydroxyethyl)ethylenediamine triacetic acid. Half of the towel sheet was placed individually in each Petri dish. In one dish, 15 drops of the reference solution containing urea 2M/tris buffer was poured evenly to the towel and other dish with towel was poured with test solution containing urea 2M/tris and copper chloride solution with N-(2-hydroxyethyl)ethylenediamine triacetic acid trisodium salt hydrate. Two drops of urease solution containing tris buffer and urease were added to each dish and the dishes were closed. After 30 minutes, strong ammonia smell was developed in the reference dish and no ammonia odor was

detectable in the test solution dish.

L64 ANSWER 7 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
 AN 2002-444011 [47] WPIX  
 DNC C2002-126367  
 TI Production of granular sodium percarbonate useful as detergent bleaching agent comprises using **stabilizing** additive comprising magnesium compound and/or chelating agent.  
 DC D25 E34  
 IN BERTSCH-FRANK, B; JAKOB, H  
 PA (DEGS) DEGUSSA AG; (BERT-I) BERTSCH-FRANK B; (JAKO-I) JAKOB H  
 CYC 31  
 PI WO 2002026623 A1 20020404 (200247)\* GE 25 C01B015-10  
 RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
 W: BR CA IL IN JP KP KR MX PL SI  
 DE 10048514 A1 20020411 (200247) C01B015-10  
 US 2002041843 A1 20020411 (200247) C01B031-24  
 EP 1320511 A1 20030625 (200341) GE C01B015-10  
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE SI TR  
 KR 2003055271 A 20030702 (200377) C01B015-10  
 BR 2001014251 A 20031209 (200404) C01B015-10  
 MX 2003002758 A1 20030701 (200420) C01B015-10  
 JP 2004509828 W 20040402 (200424) 37 C01B015-10  
 ADT WO 2002026623 A1 WO 2001-EP8991 20010803; DE 10048514 A1 DE 2000-10048514 20000929; US 2002041843 A1 US 2001-961395 20010925; EP 1320511 A1 EP 2001-955385 20010803, WO 2001-EP8991 20010803; KR 2003055271 A KR 2003-704429 20030327; BR 2001014251 A BR 2001-14251 20010803, WO 2001-EP8991 20010803; MX 2003002758 A1 WO 2001-EP8991 20010803, MX 2003-2758 20030328; JP 2004509828 W WO 2001-EP8991 20010803, JP 2002-530413 20010803  
 FDT EP 1320511 A1 Based on WO 2002026623; BR 2001014251 A Based on WO 2002026623; MX 2003002758 A1 Based on WO 2002026623; JP 2004509828 W Based on WO 2002026623  
 PRAI DE 2000-10048514 20000929  
 IC ICM C01B015-10; C01B031-24  
 AB WO 200226623 A UPAB: 20020725  
 NOVELTY - Production of granular sodium percarbonate by fluidized-bed spray granulation comprises using **stabilizing** additive comprising magnesium compound and/or chelating agent.  
 DETAILED DESCRIPTION - Production of granular sodium percarbonate by spraying aqueous sodium carbonate solution or suspension and aqueous hydrogen peroxide solution in presence of **stabilizing** additive into fluidized bed of sodium percarbonate particles and simultaneously evaporating water at bed temperature of 40-95 deg. C comprises using **stabilizing** additive comprising magnesium compound in amount of 50-2000 ppm Mg<sup>2+</sup> by weight of sodium percarbonate and/or chelating agent selected from hydroxycarboxylic acids, aminocarboxylic acids, aminophosphonic acids, phosphonocarboxylic acids, hydroxyphosphonic acids and their alkali metal, ammonium or magnesium salts in an amount of 50-2000 ppm by weight of sodium percarbonate.  
 USE - The granular sodium percarbonate is useful as bleaching agent in detergent compositions.  
 ADVANTAGE - The granular sodium percarbonate has good storage **stability**, with TAM energy release value of no more than 8 (especially less than 7) micro W/g, measured after 48 hours at 40 deg. C.  
 Dwg.0/0  
 FS CPI  
 FA AB; DCN  
 MC CPI: D11-B01; E05-A; E05-B01; E05-G; E10-A07; E10-A20B; E10-B01C1; E10-B02; E10-C02F; E10-C04; E31-E; E32-A; E34-B  
 TECH UPTX: 20020725  
 TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The chelating

agent is nitrilotriacetic acid, iminodiacetic acid, ethylenediamine tetraacetic acid, **iminodisuccinate**, tartaric acid, gluconic acid, aminotri(methylene phosphonic acid), ethylenediamine tetra(methylene phosphonic acid), diethylenetriamine penta(methylene phosphonic acid), tri-, tetra-, penta or hexamethylene tetra(methylene phosphonic acid), 1-hydroxyethane-1,1-diphosphonic acid or their sodium, potassium or magnesium salts.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Process: The magnesium compound is magnesium sulfate, magnesium acetate or magnesium chelate and is added to hydrogen peroxide solution in an amount of 200-1000 ppm by weight of sodium percarbonate. The chelating agent is added to hydrogen peroxide or soda solution in an amount of 200-1000 ppm by weight of sodium percarbonate. The hydrogen peroxide solution has a concentration of 30-75 wt.% and soda solution or suspension has concentration of 30-50 wt.%. Water-glass with a SiO<sub>2</sub>/Na<sub>2</sub>O ratio of 1-3 (especially 1-2) is used as costabilizer in an amount of 0.1-1 (especially 0.1-0.5) % SiO<sub>2</sub> by weight of sodium percarbonate.

L64 ANSWER 8 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
AN 2002-382830 [41] WPIX  
DNN N2002-299712 DNC C2002-107852  
TI Conditioning agent for static or flowing water systems in mineral oil exploration or tunnel dewatering, comprises polysuccinimide with additives comprising aryl or alkyl compounds.  
DC A14 A28 A97 D15 H01 Q49  
IN JOENTGEN, W; KLAUSA, T; KLEIN, T; MENZEL, T; SICIUS, H; SILDATKE, T; WAMBACH, W  
PA (FARB) BAYER AG; (JOEN-I) JOENTGEN W; (KLAU-I) KLAUSA T; (KLEI-I) KLEIN T; (MENZ-I) MENZEL T; (SICI-I) SICIUS H; (SILD-I) SILDATKE T; (WAMB-I) WAMBACH W  
CYC 98  
PI WO 2002016731 A2 20020228 (200241)\* GE 19 E21B037-06  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TR TZ UG ZW  
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK  
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO  
RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
DE 10101671 A1 20020314 (200241) C02F005-12  
AU 2002012146 A 20020304 (200247)  
US 2002125199 A1 20020912 (200262) C02F001-68  
NO 2003000853 A 20030224 (200334) E21B037-06  
EP 1313930 A2 20030528 (200336) GE  
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI TR  
MX 2003001553 A1 20040501 (200482) E21B037-06  
ADT WO 2002016731 A2 WO 2001-EP9678 20010822; DE 10101671 A1 DE  
2001-10101671 20010116; AU 2002012146 A AU 2002-12146  
20010822; US 2002125199 A1 US 2001-935988 20010823; NO  
2003000853 A WO 2001-EP9678 20010822, NO 2003-853 20030224; EP  
1313930 A2 EP 2001-980256 20010822, WO 2001-EP9678  
20010822; MX 2003001553 A1 WO 2001-EP9678 20010822, MX  
2003-1553 20030220  
FDT AU 2002012146 A Based on WO 2002016731; EP 1313930 A2 Based on WO  
2002016731; MX 2003001553 A1 Based on WO 2002016731  
PRAI DE 2001-10101671 20010116; DE  
2000-10041904 20000825; DE 2000-10050904  
20001013  
IC ICM C02F001-68; C02F005-12; E21B037-06  
ICS C02F005-10; C02F005-14; C08G073-10; E21B037-00; E21B043-22  
AB WO 200216731 A UPAB: 20020701  
NOVELTY - A conditioning agent (I) for static or flowing water systems

comprises polysuccinimide or its partial hydrolyzate combined with additives comprising 5-50C saturated or unsaturated, linear or branched aryl or alkyl compounds, preferably fatty acids.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for processes to inhibit sedimentation in static or flowing water systems or swimming pools by the addition of the conditioning agent (I).

USE - The conditioning agent (I) is useful for the treatment of static or flowing water systems in mineral oil exploration or tunnel dewatering.

ADVANTAGE - The agent (I) inhibits the sedimentation of calcium carbonate, magnesium carbonate, calcium sulfate, silicates, barium sulfate or iron oxide.

Dwg.0/0

FS CPI GMPI

FA AB

MC CPI: A12-W10; A12-W11J; D04-A; H01-E

TECH UPTX: 20020701

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The water system contains 0.1-10,000 g/m3 of polysuccinimide. Hardness **stabilizers**, preferably phosphates, organophosphonic acids, phosphate esters, polyphoric acid esters, aminophosphates, succinic acid amide, carbohydrate, polysaccharide, gluconate, polyglycoside, polyglucoside, polyosycarboxylic acid and copolymers, oxidized carbohydrate, proteins, water soluble polyaminoacids, silicates or zeolites are also added. Dispersing agents, preferably tannin derivatives, polyacrylate, phosphinic acid containing homo- and copolymers of acrylic acid and acrylamide, N-butylacrylamide, maleic acid- or maleic acid anhydride polymers and copolymers, copolymers of alkenes with unsaturated dicarboxylic acids and 12 other named dispersing agents are added. A complexing agent, preferably **iminodisuccinate**, nitrilotriacetic acid, citric acid, EDTA, ethercarboxylates, oxidized carbohydrate or phosphorus containing compounds are added. Preferred Process: The flowing water system is used in mineral oil exploration or tunnel dewatering. The sedimentation comprises calcium carbonate, magnesium carbonate, calcium sulfate, silicates, barium sulfate or iron oxide.

ABEX UPTX: 20020701

EXAMPLE - A tablet formulation comprised 90% polysuccinimide and 10% palmitic acid and had a dissolution rate of 70 mg/h.

L64 ANSWER 9 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2002-097766 [13] WPIX

DNC C2002-030514

TI Laundry detergent composition for washing both white and colored fabrics, comprises cationic detergent surfactant and specific sequesterant.

DC D25 E17

IN FINCH, T D; SINGH, A P

PA (UNIL) UNILEVER HOME & PERSONAL CARE USA DIV CO; (UNIL) HINDUSTAN LEVER LTD; (UNIL) UNILEVER NV; (UNIL) UNILEVER PLC

CYC 95

PI WO 2001092449 A1 20011206 (200213)\* EN 31 C11D003-33 <--  
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
 NL OA PT SD SE SL SZ TR TZ UG ZW  
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
 DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
 LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE  
 SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
 US 2002004475 A1 20020110 (200213) C11D003-48  
 AU 2001072422 A 20011211 (200225) <--  
 US 6395696 B2 20020528 (200243) C11D001-62  
 EP 1287101 A1 20030305 (200319) EN C11D003-33  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI TR

BR 2001011323 A 20030603 (200343) C11D003-33  
 CN 1432057 A 20030723 (200365) C11D003-33  
 ZA 2002009182 A 20040128 (200420) 36 C11D000-00  
 EP 1287101 B1 20040421 (200428) EN C11D003-33  
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR  
 DE 60102922 E 20040527 (200436) C11D003-33  
 ES 2218429 T3 20041116 (200477) C11D003-33

ADT WO 2001092449 A1 WO 2001-EP5963 20010523; US 2002004475 A1  
 US 2001-872879 20010601; AU 2001072422 A AU 2001-72422  
 20010523; US 6395696 B2 US 2001-872879 20010601; EP 1287101  
 A1 EP 2001-951519 20010523, WO 2001-EP5963 20010523;  
 BR 2001011323 A BR 2001-11323 20010523, WO 2001-EP5963  
 20010523; CN 1432057 A CN 2001-810561 20010523; ZA  
 2002009182 A ZA 2002-9182 20021112; EP 1287101 B1 EP 2001-951519  
 20010523, WO 2001-EP5963 20010523; DE 60102922 E DE  
 2001-00102922 20010523, EP 2001-951519 20010523, WO  
 2001-EP5963 20010523; ES 2218429 T3 EP 2001-951519 20010523

FDT AU 2001072422 A Based on WO 2001092449; EP 1287101 A1 Based on WO  
 2001092449; BR 2001011323 A Based on WO 2001092449; EP 1287101 B1 Based on  
 WO 2001092449; DE 60102922 E Based on EP 1287101, Based on WO 2001092449;  
 ES 2218429 T3 Based on EP 1287101

PRAI GB 2000-13501 20000602

IC ICM C11D000-00; C11D001-62; C11D003-33; C11D003-48  
 ICS C11D001-38; C11D003-30

AB WO 200192449 A UPAB: 20020226

NOVELTY - A laundry detergent composition comprises 0.1-10 weight% of a  
 cationic detergent surfactant and 0.05-5 weight% of a specific sequesterant,  
 at a ratio of 1:5-5:1.

DETAILED DESCRIPTION - A laundry detergent composition comprising  
 surfactant builder and optionally other detergent ingredients,  
 specifically comprises 0.1-10 weight% of a cationic detergent surfactant and  
 0.05-5 weight% of a sequesterant of formula (I):  
 Y = H or OH; and  
 X = H or solubilizing cation.

The components are present at a ratio of 1:5-5:1.

An INDEPENDENT CLAIM is also included for a method of removing soils  
 and stains from textile fabrics, comprising laundering the fabrics by hand  
 or machine in a wash liquor containing the above detergent composition.

USE - For washing both white and colored fabrics.

ADVANTAGE - The inventive laundry detergent composition exhibits  
 improved soil and stain removal performance (claimed) in conjunction with  
 reduced fading of dyes on colored fabrics.

Dwg.0/0

FS CPI  
 FA AB; GI; DCN  
 MC CPI: D11-A02B; D11-B03; D11-B06; E10-A22E; E10-A22G; E10-B02D8  
 TECH UPTX: 20020226

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The  
 detergent composition comprises 0.5-5 wt.% of the cationic detergent  
 surfactant and 0.2-2.5 wt.%, preferably 0.5-1.5 wt.%, of the sequesterant  
 (I).

The composition further comprises 5-40 wt.% of anionic, non-ionic,  
 amphoteric, and/or zwitterionic detergent surfactants; and 10-80 wt.% of  
 detergency builder(s); and optionally other detergent ingredients to 100  
 wt.%.

Preferred Concentration: The ratio of the cationic detergent surfactant to  
 the sequesterant (I) is 0.5:1-5:1, preferably 1:1-5:1.

Preferred Components: The sequesterant (I) is **iminodisuccinic**  
**acid** or its salt (preferably its sodium salt).

The cationic detergent surfactant is a quaternary ammonium compound of  
 formula (II):  
 R1 = 8-22C alkyl;  
 R2 = Me;

R3, R4 = Me or hydroxyethyl; and  
X- = solubilizing anion.

Other detergent ingredients which may be included in the detergent composition are bleaches, bleach activators, bleach stabilizers, enzymes, anti-redeposition polymers, soil release polymers, dye transfer-inhibiting polymers, solvents, hydrotropes, fluorescers, photobleaches, foam boosters, foam controllers (antifoams), sodium (bi)carbonate, sodium silicate, sodium sulfate, calcium chloride, other inorganic salts, fabric conditioning compounds, and/or perfumes.

Preferred Product: The detergent composition is in particulate form.

ABEX UPTX: 20020226

EXAMPLE - A detergent composition comprising 21.6 weight% sodium linear alkylbenzene sulfonate (NaLAS), 2.4 weight% Praepagen (RTM, cationic surfactant), 0.625 weight% sodium iminodisuccinate (IDS), 15.0 weight% sodium tripolyphosphate, 15.6 weight% sodium carbonate, 18.3 weight% sodium sulfate, 6.7 weight% sodium silicate, and water and minors to 100%, was prepared.

A comparative composition was also prepared using the same formulation except that 24.0 weight% NaLAS was used and no IDS was included. When used to wash polyviscose test cloths stained with a red mud/Vaseline stain, the inventive composition had greater stain removal (8.42) than the comparative composition (9.6).

L64 ANSWER 10 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2001-488557 [53] WPIX

DNC C2001-146598

TI Fabric care composition, used for laundry treatment of colored fabrics, e.g. clothing, comprises dye fixing agent, N-heterocyclic polymer and non-ionic surfactant.

DC A97 D25 F06

IN BORY, B H; KUZMENKA, D J; MUHAMMAD, W N; WOLF, D; WOLF, D N

PA (UNIL) UNILEVER PLC; (UNIL) UNILEVER NV; (BORY-I) BORY B H; (KUZM-I) KUZMENKA D J; (MUHA-I) MUHAMMAD W N A; (WOLF-I) WOLF D; (UNIL) UNILEVER HOME & PERSONAL CARE USA DIV CO; (HIND-N) HINDUSTAN LEVER LTD

CYC 95

PI WO 2001044423 A1 20010621 (200153)\* EN 37 C11D001-835 <--  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TR TZ UG ZW  
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE  
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
AU 2001018637 A 20010625 (200162) C11D001-835 <--  
US 2002112294 A1 20020822 (200258) D06M010-00  
BR 2000016449 A 20020827 (200265) C11D001-835  
EP 1238049 A1 20020911 (200267) EN C11D001-835  
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI TR

US 6627591 B2 20030930 (200367) D06L001-12

ADT WO 2001044423 A1 WO 2000-EP12717 20001214; AU 2001018637 A

AU 2001-18637 20001214; US 2002112294 A1 Provisional US

1999-172421P 19991217, Provisional US 2000-229201P 20000831

, US 2000-735992 20001213; BR 2000016449 A BR 2000-16449

20001214, WO 2000-EP12717 20001214; EP 1238049 A1 EP

2000-981373 20001214, WO 2000-EP12717 20001214; US 6627591

B2 Provisional US 1999-172421P 19991217, Provisional US

2000-229201P 20000831, US 2000-735992 20001213

FDT AU 2001018637 A Based on WO 2001044423; BR 2000016449 A Based on WO

2001044423; EP 1238049 A1 Based on WO 2001044423

PRAI US 2000-229201P 20000831; US 1999-172421P

19991217; US 2000-735992 20001213

IC ICM C11D001-835; D06L001-12; D06M010-00

ICS C11D001-00; C11D003-33; C11D003-37



AB WO 200144423 A UPAB: 20010919

NOVELTY - Fabric care composition comprises (a) a dye fixing agent; (b) N-heterocyclic polymer; and (c) a non-ionic surfactant.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for (1) a process for pre-treating colored fabric with an aqueous treatment composition, comprising contacting the fabric with the above fabric care composition for a predetermined time before the fabric is washed; and (2) a process for washing colored fabric simultaneously with a detergent solution (D) and with the fabric care composition, comprising adding the above fabric care composition into the detergent solution.

USE - For laundry treatment of colored fabrics, e.g. clothing, bedding, or table linens.

ADVANTAGE - The fabric care composition provides improved color shade **stability** and minimal dry transfer for treated fabrics, especially direct-dyed, cellulosic dark colored fabrics, after single or multiple wash cycles. The same result can be obtained even if the water temperature of the treatment is varied from cold (60 deg. F) to hot (130 deg. F).

Dwg.0/0

FS CPI

FA AB

MC CPI: A04-D01; A12-W12A; D11-A03; D11-B06; F03-C06; F03-F14

TECH UPTX: 20010919

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The fabric care composition further comprises (d) a chelating agent which is selected from polyaminocarboxylic acids or its salts, **iminodisuccinate** (IDS) derivatives,

phosphonates, citrates, phosphates or carboxymethyloxy succinate derivatives. The composition comprises (wt.%), (b) N-heterocyclic polymer (0.1-20, preferably 1-10, more preferably 0.01-10, most preferably 0.1-5); (c) non-ionic surfactant (0.1-60, preferably 7-8.5); and (d) chelating agent (0.001-10, preferably 0.05-1).

Preferred Dye-fixing Agent: The dye fixative is selected from (non-)quaternized organic nitrogen compounds.

Preferred Aqueous Treatment: Preferably the aqueous treatment composition (A) has a concentration of dye fixative (0.0008-0.16 wt.%), N-heterocyclic polymer (0.00008-0.08 wt.%), chelating agent (0.00004-0.04 wt.%) and has a pH of 7.0-8.5

Preferred Detergent Solution: Preferably the detergent solution (D) has a concentration of surfactants (1.0-0.08 wt.%), dye fixative (0.0001-0.02 wt.%), N-heterocyclic polymer (0.00001-0.01 wt.%), chelating agent (0.000005-0.005 wt.%) and a pH of 7.0-9.5. The surfactants include anionic surfactant(s) present in 0.0046-0.065 wt.%.

TECHNOLOGY FOCUS - POLYMERS - Preferred Polymer: The N-heterocyclic polymer (b) is selected from polyvinylpyrrolidone N-oxide polymer, copolymers of N-vinylpyrrolidone and N-vinylimidazole, polyvinylpyrrolidone polymers, polyvinylloxazolidones and polyvinylimidazoles, 4-vinyl pyridine polymers, 2-vinyl pyridine polymers, 4-vinyl pyridinium polymer, and/or 2-vinyl pyridinium polymer.

ABEX UPTX: 20010919

EXAMPLE - A fabric care composition comprised (weight%) sodium borate pentahydrate (1.0), acid blue 80 (0.003), alcohol ethoxylate (surfactant) (5.0), Chromabond S-100 (anti-dye transfer agent) (1.0), Kathon (0.0003), IDS (0.1), perfume (0.2), Tinofix ECO (dye fixative) (5.0), and zeolite water (to 100).

It was assessed using red socks, black socks and blue socks washed with a heavy duty liquid detergent. The rank sum scores for the composition were 45, 38 and 58 for red, black and blue socks, respectively. Unwashed test socks or socks washed in a detergent alone scored 42, 39 and 31, for red, respectively.

L64 ANSWER 11 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2001-268325 [28] WPIX

DNC C2001-081499  
TI Concentrated liquid detergent composition for commercial dishwashers contains a biodegradable sequestering agent .  
DC A23 A97 D25 E19  
PA (TEEP-N) TEEPOL KK  
CYC 1  
PI JP 2001003089 A 20010109 (200128)\* 11 C11D017-00 <--  
ADT JP 2001003089 A JP 1999-171340 19990617  
PRAI JP 1999-171340 19990617  
IC ICM C11D017-00  
ICS C11D007-06; C11D007-32; C11D017-08  
AB JP2001003089 A UPAB: 20010522  
NOVELTY - A liquid detergent composition for dishwashers contains a biodegradable sequestering agent and has a solid content of 60-76 weight%.  
USE - Cleaning hard surfaces of tableware made of ceramic, plastic, glass and/or metal.  
ADVANTAGE - The composition requires reduced times of replenishing and reduces necessary storage space. The sequestering agents are biodegradable and have excellent storage **stability** at low and ordinary temperatures, and quite consistent cleaning effects.  
Dwg.0/0  
FS CPI  
FA AB; DCN  
MC CPI: A09-A07; A12-W12B; D11-B06; D11-D01A; D11-D06; D11-D07; E10-B02D8; E10-B02E  
TECH UPTX: 20010522  
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Sequestering Agent: The sequestering agent is one or more of L-glutamic diacetic compounds of formula (I), aspartic diacetic compounds of formula (II), polyaspartic compounds of formula (III), **iminodisuccinic** compounds of formula (IV), iminodiacetic compounds of formula (V) and glycinediacetic compounds of formula (VI).  
M = H, Na, K or NH<sub>4</sub>;  
R in (II) = H or OH;  
n and m = integers; and  
R in (VI) = H or CH<sub>3</sub>.  
Preferred Composition: The composition contains 0.1-15 wt.% of the sequestering agent(s), 3-40 wt.% of alkali metal hydroxide(s) and 5-72.9 wt.% of detergent builder(s). Typical organic builders include aminopolycarboxylates, phosphonocarboxylates and organic acid salts.  
  
TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: The hydroxide is most preferably potassium hydroxide. Typical inorganic builders include water-soluble silicates, phosphates, water-soluble carbonates, sulfates and phosphonates.  
  
L64 ANSWER 12 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
AN 1999-561688 [47] WPIX  
DNC C1999-163683  
TI Bleaching and/or delignification of paper pulp with peroxide oxidising agents after treatment at alkaline pH with a chelating agent.  
DC A25 A97 E12 E16 F09  
IN CHAUVEHEID, E; DEVENYNS, J; VAN BECKHOVEN, T  
PA (SOLV) SOLVAY SA; (SOLV) SOLVAY & CIE  
CYC 86  
PI WO 9946441 A1 19990916 (199947)\* FR 14 D21C009-10 <--  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
OA PT SD SE SL SZ UG ZW  
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD  
GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV  
MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT  
UA UG US UZ VN YU ZW  
AU 9933305 A 19990927 (200006) D21C009-10 <--

BE 1011785 A3 20000111 (200007) D21C000-00 <--  
 EP 1062387 A1 20001227 (200102) FR D21C009-10 <--  
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE  
 ZA 9901903 A 20001227 (200103) 10 D21C000-00 <--  
 ADT WO 9946441 A1 WO 1999-EP1612 19990306; AU 9933305 A AU  
 1999-33305 19990306; BE 1011785 A3 BE 1998-190 19980310; EP  
 1062387 A1 EP 1999-914514 19990306, WO 1999-EP1612  
 19990306; ZA 9901903 A ZA 1999-1903 19990309  
 FDT AU 9933305 A Based on WO 9946441; EP 1062387 A1 Based on WO 9946441  
 PRAI BE 1998-190 19980310  
 IC ICM D21C000-00; D21C009-10  
 ICS D21C009-16  
 AB WO 9946441 A UPAB: 19991116  
 NOVELTY - Treatment of paper pulp with chelating agents comprising  
 aspartic acid and its N-substituted derivatives under alkaline conditions  
 prior to bleaching with peroxide oxidising agents.  
 DETAILED DESCRIPTION - Process for bleaching and/or delignification  
 of paper pulp using peroxide oxidising agents, in which the paper pulp is  
 pretreated at a pH greater than 8 with a chelating agent selected from  
 aspartic acid and its N-substituted derivatives.  
 USE - Bleaching of chemical paper pulps using peroxy type bleaching  
 agents.  
 ADVANTAGE - The aspartic acid type chelating agents have good  
 biodegradability, thus facilitating treatment of waste waters from the  
 process. Chelation is carried out at a pH of above 8 so that only  
 transition metals, which catalyze the decomposition of the peroxide  
 bleaching agents, are removed selectively while the alkaline earth metals,  
 which stabilize peroxide bleaching agents, are retained to  
 result in a final degree of whiteness which is as good as that obtained  
 with the non-biodegradable chelating agents used previously.  
 Dwg.0/0  
 FS CPI  
 FA AB; DCN  
 MC CPI: A12-W06; E05-A; E05-B01; E10-B01C; F05-A02B  
 TECH UPTX: 19991116  
 TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Reagents: The chelating  
 agent is selected e.g. from N-carboxymethylaspartic acid; N-(1,2-  
**dicarboxyethyl**)-aspartic acid;  
 N-(1,2-dicarboxy-2-hydroxyethyl)-aspartic acid; and compounds of formula  
 (I):  

$$n = 1-3;$$

$$l = 0-3;$$

$$p = 1-3;$$

$$R_1, R_2, R_3 \text{ and } R_4 = H, Na, K, Ca \text{ or } Mg;$$

$$R_5 \text{ and } R_6 = H, CH_2OH, CH_2CH_2OH \text{ or } CH_2O-(CH_2CH_2O-)_1-10CH_2CH_2OH$$
 or mixtures of these.  
 TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Reagents: The oxidising  
 agent is selected e.g. from H<sub>2</sub>O<sub>2</sub>, organic peracids such as peracetic acid,  
 inorganic peracids such as Caro's acid, ozone or oxygen.  
 TECHNOLOGY FOCUS - TEXTILES AND PAPER - Preferred Process: Preferably  
 treatment of the pulp with the chelating agent is carried out at a pH of  
 8.1-12 (8.2-10) and in the absence of aminocarboxylic acid or  
 hydroxycarboxylic acid chelating agents. The treatment with the aspartic  
 acid type chelating agent is carried out e.g. at 10-90 (30-75)degreesC, a  
 pulp consistency of 0.1-20 (1-10) wt. % and using 0.02-2 (0.1-1) wt. %  
 chelating agent on the dry weight of the pulp.  
 ABEX UPTX: 19991116  
 SPECIFIC COMPOUNDS - Claimed specific chelating agent is  
 ethylenediamine-N,N'-disuccinic acid and isomers and salts of this.  
 EXAMPLE - A paper pulp with an initial degree of whiteness of 48.9degrees  
 ISO was subjected to a conventional delignification and bleaching

treatment (Q W P) using EDTA as standard non-biodegradable chelating agent or ethylenediamine-N,N'-disuccinic acid (EDDS) as biodegradable chelating agent according to the invention. In the above Q = a stage of chelation carried out at 50degreesC for 30 mins. at a pulp consistency of 4 weight % solids, using 0.4 weight % chelating agent at various pHs; W = washing with water; P = treatment with H2O2 effected in alkaline medium at 90degreesC for 120 mins at a pulp consistency of 12 weight %, using 2 g H2O2 and 1.3 g NaOH per 100 g of dry pulp. The degree of whiteness obtained in the tests was as follows (given as chelating agent / pH / final degree of whiteness, degrees ISO): (1) EDTA / 8.3 / 67.6; (2) EDDS / 8.5 / 67.2; (3) EDTA / 10.1 / 66.1; (4) EDDS / 9.8 / 65.0; (5) EDTA / 6.4 / 68.5; (6) EDDS / 6.6 / 61.8.

L64 ANSWER 13 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1999-481083 [41] WPIX

DNC C1999-141705

TI Simultaneous washing and bleaching of natural fibers with peroxide.

DC A97 D25 E12 E16 E19 F06

IN GROTH, T; JOENTGEN, W; KUEMMELER, F; PFEIFFER, J; PIRKOTSCH, M

PA (FARB) BAYER AG

CYC 26

PI EP 940495 A1 19990908 (199941)\* GE 18 D06L003-02 <--

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI

DE 19809359 A1 19990909 (199943) D06L003-02 <--

US 6096097 A 20000801 (200039) D06L003-02 <--

ADT EP 940495 A1 EP 1999-103352 19990220; DE 19809359 A1 DE  
1998-1009359 19980305; US 6096097 A US 1999-259200 19990301

PRAI DE 1998-19809359 19980305

IC ICM D06L003-02

ICS B01F017-28; B01F017-52; C09K015-20; C11D003-39; D06B021-02;  
D06L001-12

AB EP 940495 A UPAB: 19991011

NOVELTY - Simultaneous washing and bleaching of untreated natural fibers, yarns or textiles prior to dyeing etc is effected using an alkaline composition to which a peroxy compound is added, the composition containing (a) 15-65% bleach **stabilizer**; (b) 15-65% nonionic, amphoteric or cationic surfactant; (c) 0-50% dispersant; and (d) 0-20% other components, based on the weight of dry components (a) - (d).

DETAILED DESCRIPTION - Simultaneous washing and bleaching of untreated natural fibers, yarns or textiles (optionally with synthetic fibers) prior to dyeing etc is effected using an alkaline composition to which a peroxy compound is added, the composition being itself novel and containing (a) 15-65% bleach **stabilizer**; (b) 15-65% nonionic, amphoteric or cationic surfactant; (c) 0-50% dispersant; and (d) 0-20% other components, the amounts being based on the weight of dry components (a) - (d). An INDEPENDENT CLAIM is also included for a combinations product consisting of the above composition.

USE - Washing and simultaneous bleaching of e.g. cotton, sisal, wool or jute to remove waxes, undesirable colorations etc.

ADVANTAGE - Both processes are achieved without the need for large amounts of water.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A12-W12A; D11-A01A; D11-A02; D11-A03; E05-A; E10-B02E; F03-B01;  
F03-J03

TECH UPTX: 19991105

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Process : The bath used is a 15-60 wt.% aqueous solution of the composition adjusted to pH 10-14 (especially 11-13) using NaOH and/or Na2CO3.

Preferred Materials : Bleach **stabilizer** (a) is an iminopolycarboxylic acid or salt of formula (I), with non-substituted

**iminodisuccinic acid** or its salts being preferred.

R1 - R4 = H, Li, Na, K, NH<sub>4</sub>, H<sub>3</sub>N(CH<sub>2</sub>CH<sub>2</sub>OH), H<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>2</sub> or HN(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>3</sub>;

R5 and R6 = H or OH; and

R7 = H, -CH<sub>2</sub>CH<sub>2</sub>OH, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>OH, -CH<sub>2</sub>CH(OH)CH<sub>3</sub>, -CH<sub>2</sub>COOR<sub>1</sub> or -CH<sub>2</sub>CH<sub>2</sub>COOR<sub>1</sub>

Surfactant (b) is nonionic or amphoteric, especially being a betaine of formula (II) or an amine oxide of formula (III);

(10-22C-Alk(en)yl)-XN+(R<sub>1</sub>,R<sub>2</sub>)-(1-4C-(Hydroxy)Alkylene)-COO- (II)

(10-22C-Alk(en)yl)-XN(R<sub>1</sub>, R<sub>2</sub>)right arrowO (III)

X = a single bond or -CO-NH- (2 or 3C alkyl)-; and

R1 and R2 = H, Me or hydroxyethyl.

Dispersant (c) is polyaspartic acid with alpha- or beta-form repeat units, especially with at least 50 (especially at least 70)% of beta-units and component (d) is a solvent or perfume.

ABEX UPTX: 19991105

EXAMPLE - A composition giving good results when used with H<sub>2</sub>O<sub>2</sub> to wash and bleach a cotton/Elastane mixture comprised (by weight) 21.2% Na<sub>4</sub> **iminodisuccinate**, 15.56% cocofatty acid amidopropylbetaine (47% in water), 10.55% i-C<sub>13</sub>-alkanol + 5EO, 10.76% methoxypropanol and 41.93% water. The composition was used at 1 ml with 4 ml NaOH (38degrees Be), 4g Na<sub>2</sub>SO<sub>4</sub> and 1.5% white tint in a 1 : 10 ratio liquor with treatment at 98degreesC for 60 minutes, followed by rinsing for 5 minutes, treating again at 90degreesC for 10 minutes and, finally, rinsing for 5 minutes.

L64 ANSWER 14 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1998-170984 [16] WPIX

DNC C1998-054765

TI Phosphate and EDTA free **stabilisers** for bleaching solutions used to treat plant or animal fibres - comprise **imino di succinic acids** or their salts.

DC A60 E19 F06

IN GROTH, T; JOENTGEN, W; PIRKOTSCH, M; RENNER, G; WALZ, K; RENNER, G F

PA (FARB) BAYER AG

CYC 20

PI EP 831165 A2 19980325 (199816)\* GE 7 D06L003-00 <--

R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DE 19638569 A1 19980402 (199819) 8 D06L003-02 <--

JP 10110195 A 19980428 (199827) 6 C11D007-54 <--

US 6056787 A 20000502 (200029) D06L003-00 <--

ADT EP 831165 A2 EP 1997-115512 19970908; DE 19638569 A1 DE

1996-1038569 19960920; JP 10110195 A JP 1997-265132 19970912

; US 6056787 A US 1997-933769 19970919

PRAI DE 1996-19638569 19960920

IC ICM C11D007-54; D06L003-00; D06L003-02

ICS C07C229-24

AB EP 831165 A UPAB: 19980421

Agent for bleaching pre-treatment of natural plant or animal fibres, or mixtures of these with synthetic fibres, or yarns, woven fabrics, knitted fabrics or nonwovens made from these fibres or their mixtures - contains **iminodisuccinic acids** of formula (I) or their salts, or mixtures of these : R1-R4 = H, Li, Na, K, NH<sub>4</sub>, H<sub>3</sub>NCH<sub>2</sub>CH<sub>2</sub>OH, H<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>2</sub> or HN(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>3</sub> ; R5, R6 = H or OH ; R7 = H, CH<sub>2</sub>CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>OH, CH<sub>2</sub>CH(OH)CH<sub>3</sub>, CH<sub>2</sub>COOR<sub>8</sub> or CH<sub>2</sub>CH<sub>2</sub>COOR<sub>8</sub> ; and R8 = R1. A method for bleaching these fibres or the above textile materials in a solution comprising water, alkali, hydrogen peroxide, wetting agent, washing agent, emulsifier and (I) as a bleaching regulator, is also claimed.

USE - For bleaching waxes, fats etc. present in fibres such as cotton, sisal, jute, silk and wool, in order to remove the associated yellow-brown colour.

ADVANTAGE - Silicate incrustation formation is avoided during bleaching without the use of environmentally harmful phosphate or EDTA bleach **stabilisers**.

Dwg.0/0  
 FS CPI  
 FA AB; GI; DCN  
 MC CPI: A08-E03C; A11-A01A; A12-S05T; E10-B02D8; F03-B01

L64 ANSWER 15 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
 AN 1998-072037 [07] WPIX  
 DNC C1998-024353  
 TI High bulk density bleaching detergent composition for lipid stains - comprises nonionic surfactants, **imino di succinic acid** and/or carboxylic acid type polymers and luminescent agent, for use in clothing.  
 DC A97 D25 E19  
 PA (LIOY) LION CORP  
 CYC 1  
 PI JP 09310097 A 19971202 (199807)\* 8 C11D010-02 <--  
 ADT JP 09310097 A JP 1996-126984 19960522  
 PRAI JP 1996-126984 19960522  
 IC ICM C11D010-02  
 ICS C11D017-06  
 ICI C11D001:72, C11D003:33, C11D003:34, C11D003:37, C11D003:395, C11D003:42, C11D010-  
 AB JP 09310097 A UPAB: 19980216  
 A compsn. contains:  
 (i) 2-25 weight % nonionic surfactants,  
 (ii) 3-20 weight % **imino-disuccinic acid**  
 and/or carboxylic acid type polymers, and  
 (iii) a luminescence agent.  
 USE - Used for clothes stained with lipids or spotting matter.  
 ADVANTAGE - The compsn. shows improved **stability** of luminescence agents on storage.  
 Dwg.0/0

FS CPI  
 FA AB; DCN  
 MC CPI: A12-W12A; D11-A03; D11-B01; E10-A20B

L64 ANSWER 16 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN  
 AN 1997-343942 [32] WPIX  
 DNC C1997-110660  
 TI Chelating agent having good biodegradability - comprises amino carboxylic acid derivatives and at least one amino acid.  
 DC D25 E19  
 IN NAKAHAMA, T; TAKAHASHI, K; TAKAYANAGI, Y; YAMAMOTO, H  
 PA (NITT) NITTO CHEM IND CO LTD; (MITR) MITSUBISHI RAYON CO LTD; (NITT) NITTO KAGAKU KOGYO KK  
 CYC 8  
 PI EP 783034 A2 19970709 (199732)\* EN 72 C11D003-33 <--  
 R: DE FR GB  
 JP 10001660 A 19980106 (199811) 48 C09K003-00 <--  
 KR 97070175 A 19971107 (199845) C11D001-62 <--  
 JP 2000212596 A 20000802 (200041) 54 C11D003-33 <--  
 US 6221834 B1 20010424 (200125) C11D003-33 <--  
 US 2001034318 A1 20011025 (200170) C11D001-00 <--  
 US 2002039980 A1 20020404 (200227) C11D017-06  
 US 6426229 B1 20020730 (200254) C11D003-32  
 US 6451757 B2 20020917 (200264) C11D003-32  
 CN 1161325 A 19971008 (200309) C07C229-16 <--  
 TW 515784 A 20030101 (200355) C07C227-44  
 CN 1515545 A 20040728 (200469) C07C229-16  
 CN 1080758 C 20020313 (200516) C11D003-33  
 ADT EP 783034 A2 EP 1996-118762 19961122; JP 10001660 A JP 1996-303504 19961030; KR 97070175 A KR 1996-69234 19961220; JP 2000212596 A Div ex JP 1996-303504 19961030, JP

2000-29837 19961030; US 6221834 B1 Cont of US 1996-764510  
 19961212, US 1999-352132 19990713; US 2001034318 A1  
 Cont of US 1999-276706 19990326, Cont of US 1999-352132  
 19990713, US 2001-754210 20010105; US 2002039980 A1  
 Cont of US 1999-352132 19990713, US 2001-754211 20010105  
 ; US 6426229 B1 Cont of US 1996-764510 19961212, Div ex US  
 1999-352132 19990713, US 2001-754211 20010105; US 6451757  
 B2 Cont of US 1996-764510 19961212, Cont of US 1999-352132  
 19990713, US 2001-754210 20010105; CN 1161325 A CN  
 1996-117902 19961220; TW 515784 A TW 1996-114085 19961116;  
 CN 1515545 A Div ex CN 1996-117902 19961220, CN 2001-125143  
 19961220; CN 1080758 C CN 1996-117902 19961220

FDT US 2001034318 A1 Cont of US 6221834; US 2002039980 A1 Cont of US 6221834;  
 US 6451757 B2 Cont of US 6221834

PRAI JP 1996-119502 19960418; JP 1995-349512  
 19951222; JP 1995-349513 19951222;  
 JP 1995-349514 19951222; JP 1995-352124  
 19951228; JP 1995-352125 19951228;  
 JP 1995-352126 19951228; JP 1995-352127  
 19951228; JP 1995-352128 19951228;  
 JP 1995-352129 19951228; JP 1996-22999  
 19960117; JP 1996-26215 19960122;  
 JP 1996-39075 19960202; JP 1996-39076  
 19960202; JP 1996-39077 19960202

IC ICM C07C227-44; C07C229-16; C09K003-00; C11D001-00; C11D001-62;  
 C11D003-32; C11D003-33; C11D017-06

ICS C11D001-28; C11D001-83; C11D003-08; C11D003-26; C11D003-34;  
 C11D003-395; G01N033-20

AB EP 783034 A UPAB: 19970806

A chelating agent comprises a compound of formula (I) and 80 weight % of at least one compound selected from aspartic acid, maleic acid, acrylic acid, maleic acid, glycine, glycolic acid, iminodiacetic acid, nitrilotriacetic acid, alpha -alanine, beta -alanine, iminodipropionic acid, fumaric acid, a synthetic starting amino acid, a synthetic intermediate amino acid and its salt.

R1 = H, 1-10C hydrocarbon optionally substituted by OH, CO<sub>2</sub>M, SO<sub>3</sub>M;  
 R2 = H, 1-8C hydrocarbon optionally substituted by OH, CO<sub>2</sub>M, SO<sub>3</sub>M; with the proviso that R1 and R2 may form a ring together; M = H, an alkali metal; X = CHR<sub>3</sub>R<sub>4</sub> or AlCH(A<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>)-NHA<sub>5</sub>; R<sub>3</sub> = H, 1-8C hydrocarbon optionally substituted by OH, CO<sub>2</sub>M and SO<sub>3</sub>M; R<sub>4</sub> = H, CO<sub>2</sub>M, SO<sub>3</sub>M; A<sub>1</sub>, A<sub>2</sub> = H, CO<sub>2</sub>M, SO<sub>3</sub>M; A<sub>5</sub> = 1-8C alkylene or may form a ring; the alkylene may contain in the chain an ether bond, an ester bond, or an amide bond CONH; n = 1-8; Y = H, CO<sub>2</sub>M, SO<sub>3</sub>M.

The compound of formula (I) is selected from (S)-aspartic acid-monoacetic acid, (S)-aspartic acid-N,N-diacetic acid, (S)-aspartic acid-mono-propionic acid, (S,S)-iminodisuccinic acid, (S,R)-iminodisuccinic acid, (S)-2-sulphomethyl aspartic acid, (S)-2-sulphoethylaspartic acid, (S)-glutamic acid-N,N-diacetic acid, (S)-2-sulphomethyl glutamic acid, (S)-2-sulphoethylglutamic acid, (S)- alpha -alanine- N,N-diacetic acid, (S)-serine-N,N-diacetic acid, (S)-phenylalanine- N,N-diacetic acid and alkali metal salts and their ammonium salts.

USE - Used in a detergent.

ADVANTAGE - The chelating agent is environmentally friendly being biodegradable. It has good storage stability i.e. does not undergo decomposition of discolouration.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D11-A01D; D11-D06; E10-B02D5; E10-B02D6; E10-B02E; E10-C02F;  
 E10-C04D4; E10-C04G

AN 1996-464987 [46] WPIX  
 CR 1996-456276 [46]  
 DNC C1996-146052  
 TI Biodegradable succinimide or aspartic acid polymers - contain  
**imino di succinate** units, useful as metal  
 chelating agents, incrustation inhibitors, dispersants or builders.  
 DC A23 A26 A97 D15 D25 H01  
 IN BRUECHER, K H; GROTH, T; HEISE, K P; HEUER, L; JOENTGEN, W; LIESENFELDER,  
 U; MENZEL, T; MUELLER, N; PIRKL, H G; TRAENCKNER, H; UHR, H; WAGNER, P;  
 WESENER, J R; WOLLBORN, U; BRUECHER, K; HEISE, K; LEISENFELDER, U; PIRKL,  
 H; WESENER, J  
 PA (FARB) BAYER AG  
 CYC 26  
 PI WO 9631554 A1 19961010 (199646)\* EN 31 C08G069-10 <--  
 RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
 W: CN CZ JP KR LT PL SI  
 DE 19527572 A1 19970130 (199710) 12 C08G069-10 <--  
 EP 819145 A1 19980121 (199808) GE C08G069-10 <--  
 R: BE CH DE ES FR GB IE IT LI NL PT SE  
 CZ 9703142 A3 19980114 (199810) C08G069-10 <--  
 JP 11503184 W 19990323 (199922) 26 C08G073-10 <--  
 TW 425405 A 20010311 (200143) C08G069-00 <--  
 EP 819145 B1 20020306 (200219) GE C08G069-10  
 R: BE CH DE ES FR GB IE IT LI NL PT SE  
 DE 59608842 G 20020411 (200227) C08G069-10  
 ES 2173272 T3 20021016 (200279) C08G069-10  
 ADT WO 9631554 A1 WO 1996-EP1310 19960325; DE 19527572 A1 DE  
 1995-1027572 19950728; EP 819145 A1 EP 1996-908137 19960325  
 , WO 1996-EP1310 19960325; CZ 9703142 A3 WO 1996-EP1310  
 19960325, CZ 1997-3142 19960325; JP 11503184 W JP  
 1996-529940 19960325, WO 1996-EP1310 19960325; TW 425405 A  
 TW 1996-102942 19960312; EP 819145 B1 EP 1996-908137  
 19960325, WO 1996-EP1310 19960325; DE 59608842 G DE  
 1996-508842 19960325, EP 1996-908137 19960325, WO  
 1996-EP1310 19960325; ES 2173272 T3 EP 1996-908137 19960325  
 FDT EP 819145 A1 Based on WO 9631554; CZ 9703142 A3 Based on WO 9631554; JP  
 11503184 W Based on WO 9631554; EP 819145 B1 Based on WO 9631554; DE  
 59608842 G Based on EP 819145, Based on WO 9631554; ES 2173272 T3 Based on  
 EP 819145  
 PRAI DE 1995-19527572 19950728; DE  
 1995-19512898 19950406  
 REP DE 4221875  
 IC ICM C08G069-00; C08G069-10; C08G073-10  
 ICS B01F017-52; C08G073-14; C09K005-00; C09K007-02; C11D003-37  
 AB WO 9631554 A UPAB: 20021209  
 Polymers (P) comprising succinyl repeat units - contain  
**iminodisuccinate** units (I). The preparation of (P) is also claimed,  
 comprising the thermal polymerisation of maleic acid (anhydride) or  
 fumaric acid, or their derivs., in the presence of excess ammonia and opt.  
 comonomers, and opt. then at least partially neutralising the prim.  
 polymer.  
 USE - (P) are used in aqueous systems as metal chelating agents or salt  
 precipitation inhibitors, as dispersants for (in)organic particles, or in  
 detergents, cleansing agents, coolant cycles, vapourisers, desalination  
 plants or sec. oil recovery processes (claimed). For example, they are  
 used as builders in low- or zero phosphate content detergents,  
**stabilisers** in bleaching processes (e.g. using H2O2), preventing  
 scale formation during the boiling of sugar extract, chelating heavy  
 metals (e.g. Cu, Fe etc.), or to prevent the precipitation of CaCO3, CaSO4,  
 Ca3(PO4)2, BaSO4, MgSiO3 etc.  
 ADVANTAGE - (P) are readily biodegradable.  
 Dwg.0/0  
 FS CPI



FA AB

MC CPI: A05-F03; A09-A07; A10-E14; A10-E17; A12-W11; D04-A01P; D04-A03A;  
D04-B07F; D11-B06; **D11-B12**; D11-B19; D11-D06; H01-D06

L64 ANSWER 18 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1996-456276 [46] WPIX

CR 1996-464987 [46]

DNC C1996-143127

TI Polymers with recurring succinyl units which also include **imino di succinate** units - used, e.g., as **stabilisers** for bleach components, as builder components in detergents, or as inhibitors of salt precipitation.

DC A23 A97 D15 D25 H01

IN BRUECHER, K; GROTH, T; HEISE, K; HEUER, L; JOENTGEN, W; LIESENFELDER, U;  
MENZEL, T; MUELLER, N; PIRKL, H; TRAENCKNER, H; UHR, H; WAGNER, P;  
WESENER, J; WOLLBORN, U

PA (FARB) BAYER AG

CYC 3

PI	DE 19512898	A1 19961010 (199646)*	12	C08G069-10	<--
	US 5679761	A 19971021 (199748)	9	C08G073-10	<--
	TW 425405	A 20010311 (200143)		C08G069-00	<--

ADT DE 19512898 A1 DE 1995-1012898 19950406; US 5679761 A US  
1995-515356 19950815; TW 425405 A TW 1996-102942 19960312PRAI DE 1995-19512898 19950406; DE  
1995-19527572 19950728

IC ICM C08G069-00; C08G069-10; C08G073-10

ICS B01F017-52; C02F005-12; C08G073-14; C09K007-02; C11D003-37

AB DE 19512898 A UPAB: 20010801

Polymers with recurring succinyl units, which comprise **imino-disuccinate** units, are new.

USE - They may be used as additives in low phosphate and phosphate-free cleaning compsns.. They are useful as builders in detergents and are capable of reducing incrustation and greying of washed fabrics. They can be used as **stabilising** agents for bleaches such as hydrogen peroxide. They are also useful for inhibiting or delaying precipitation of salts (such as calcium sulphate, calcium phosphate, calcium carbonate, barium sulphate or magnesium silicate) from aqueous solns., and may thus be used in water treatment. They may be added to, e.g., circulating water systems, desalination plants, and oil production water.

ADVANTAGE - The polymers have improved calcium binding capacity, and form complexes with heavy metals such as copper and iron.

Dwg.0/0

FS CPI

FA AB; GI

MC CPI: A05-F02; A05-J01A; A05-J04; A12-W12A; D04-A01P; D11-B01C; D11-B03;  
D11-B06; **D11-B12**; D11-B19; H01-D06

ABEQ US 5679761 A UPAB: 19971209

A polymer having repeating succinyl units where additionally 2 to 25 mol-% which contains **imino-disuccinate** units are incorporated based on the sum of all repeating units.

Dwg.0/0

L64 ANSWER 19 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1996-112673 [12] WPIX

DNC C1996-035369

TI Prepn of alkali metal salts of **imino-di succinic acid** - comprises adding hemi-ester of maleic acid to aspartic acid or ammonia in alkaline conditions, used for biodegradable chelating agents.

DC D25 E12

PA (NITT) NITTO CHEM IND CO LTD

CYC 1

PI	JP 08012631	A 19960116 (199612)*	10	C07C227-14	<--
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ADT JP 08012631 A JP 1994-164791 19940624

PRAI JP 1994-164791 19940624

IC ICM C07C227-14

ICS C07C229-24

AB JP 08012631 A UPAB: 19960625

Preparation of alkali metal salts of **iminodisuccinic acid** comprises addition of hemi-ester of maleic acid to aspartic acid or ammonia in alkaline conditions, with opt. crystallisation, using mineral acid.

Also claimed is preparation of alkali salts of **imino disuccinic acid** containing no (D,D) cpd., where the hemi-ester of maleic acid is added to (L) aspartic acid in alkaline conditions.

Also claimed are biodegradable chelating agents containing alkali metal salts of **imino disuccinic acid** containing no (D,D) cpds.

The hemi-ester is pref. a hemiester of methylalcohol.

USE - The biodegradable chelating agents are used as cleaning agents, heavy metal including agents or peroxide **stabilisers**.

In an example, anhydrous methanol (32.6g) was dropped in maleic anhydride (100g, 1.02 mol) and stirred at 65 deg.C for 30 mins. to give monomethylester maleate. 35 weight% disodium (L)-aspartate aqueous solution

(389g, 1.02 mol) was added to the ester and reacted at 105 deg.C for 4 hrs. with addition twice of 45 weight% of sodium hydroxide aqueous solution (90.7g, 1.02 mol.).

The prod. was condensed to give a slurry, which was spray-dried at 120 deg.C to give white crystal of **tetrasodium iminodisuccinate** (361g) containing 50% of (L,L) and 50% of (D,L) cpds. and no (D,D) cpd.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D11-D; E05-A; E10-B02D

L64 ANSWER 20 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1995-048801 [07] WPIX

DNC C1995-022095

TI Production of **imino-di succinic acid**

metal salts for detergent builder, etc. - comprises reacting maleic acid cpd. with ammonia in aqueous medium adding alkali metal hydroxide and adding maleic acid cpd..

DC D25 E12 F06 M11

PA (JAPC) NIPPON SHOKUBAI CO LTD

CYC 1

PI JP 06329607 A 19941129 (199507)\* 5 C07C229-24 <--

JP 3326867 B2 20020924 (200264) 6 C07C227-06

ADT JP 06329607 A JP 1993-121696 19930524; JP 3326867 B2 JP 1993-121696 19930524

FDT JP 3326867 B2 Previous Publ. JP 06329607

PRAI JP 1993-121696 19930524

IC ICM C07C227-06; C07C229-24

ICS C07C227-08

AB JP 06329607 A UPAB: 19960529

Process comprises reacting at least one maleic acid cpd. (A) selected from a group consisting of maleic acid, maleic acid ammonium salt and maleic anhydride with ammonia to produce an **imino-di succinic acid** metal salt, where the following reaction

steps (1) to (3) are conducted in practice successively: (1) reacting a maleic acid cpd. (A) with ammonia in an aqueous medium, (2) adding an alkali metal hydroxide and/or alkaline earth metal hydroxide to thereby convert to the alkali metal and/or alkaline earth metal salt and (3) adding at least one maleic acid cpd. (B) selected from maleic acid, maleic acid alkali metal salt and maleic acid alkaline earth metal salt to conduct

further reaction.

Ammonia is reacted at a molar ratio of 1.5 to 20 against maleic acid cpd., while the alkali metal hydroxide and/or alkaline earth metal hydroxide is added to a ratio of not less than 1 equivalent against the maleic acid cpd. (B) is added at a molar ratio of 0 to 1.2 against (A).

USE/ADVANTAGE - The process can produce **imino-di succinic acid** metal salts with a high degree of purity in improved yields in the industrially efficient manner, which solution is useful for developing organic chelating agent, detergent builder, scale-forming inhibitor, dyeing improver, auxiliary agent for electroplating, peroxide **stabiliser**, pigment dispersant, etc.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: D11-A03; D11-B03; E05-A; E05-B01; E10-B02D8; F03-C06; F03-F32; M11-B

L64 ANSWER 21 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1995-048800 [07] WPIX

DNC C1995-022094

TI **Imino di succinic acid** metal salt

production, useful for preparing detergent builders, pigment dispersants, etc.  
- comprises reacting maleic acid with ammonia, adding alkali or alkaline earth hydroxide and ageing.

DC D25 E12

PA (JAPC) NIPPON SHOKUBAI CO LTD

CYC 1

PI JP 06329606 A 19941129 (199507)\* 4 C07C229-24 <--

ADT JP 06329606 A JP 1993-121695 19930524

PRAI JP 1993-121695 19930524

IC ICM C07C229-24

ICS C07C227-08

AB JP 06329606 A UPAB: 19950223

To produce an **imino-di succinic acid** metal salt by reacting at least one maleic acid compound selected from maleic acid, maleic acid ammonium salt and maleic anhydride with ammonia to produce an **imino-di succinic acid** metal salt. The following reaction steps (1) to (3) are conducted, successively (1) reacting a maleic acid cpd. with ammonia in an aqueous medium, (2) adding alkali metal hydroxide and/or alkaline earth metal hydroxide to thereby convert to the alkali metal and/or alkaline earth metal salt and (3) conducting an ageing reaction in the state of the above metal salt at 70-130 deg.C for 1 -30 hrs.

Ammonia is reacted at a molar ratio of 1.5-4 against maleic acid cpd., while alkali metal ratio of not less than 1 equivalent against maleic acid cpd.

USE/ADVANTAGE - Produces **imino-di succinic acid** metal salts with high deg. of purity in improved yields without causing side reactions. Salts are useful as an tly (sic) and at reduced costs. Solution is useful for developing organic chelating agent, detergent builder, scale-forming inhibitor, dyeing improver, auxiliary agent for electroplating, peroxide **stabiliser**, pigment dispersant, etc.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: D04-A03A; D11-B03; E05-A; E05-B01; E10-B02D8

L64 ANSWER 22 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1992-351062 [43] WPIX

DNC C1992-155781

TI Biodegradable bleach **stabilisers** for detergents - have good complexing properties, are ecologically safe and contain no phosphorus.

DC D25 E19

IN HARTMAN, J A R; WOODBURY, R P; HARTMAN, J R  
 PA (GRAC) GRACE & CO-CONN W R; (HAMP-N) HAMPSHIRE CHEM CORP  
 CYC 17

PI EP 509382 A2 19921021 (199243)\* EN 13 C11D003-39 <--  
 R: AT BE CH DE DK ES FR GB GR IT LI LU NL PT SE  
 CA 2063118 A 19921018 (199302) C11D003-395 <--  
 EP 509382 A3 19930113 (199346) C11D003-39 <--  
 US 5362412 A 19941108 (199444) 9 C11D003-395 <--  
 EP 509382 B1 19981104 (199848) EN C11D003-39 <--  
 R: AT BE CH DE DK ES FR GB GR IT LI LU NL PT SE  
 DE 69227479 E 19981210 (199904) C11D003-39 <--  
 ES 2122974 T3 19990101 (199907) C11D003-39 <--

ADT EP 509382 A2 EP 1992-106046 19920408; CA 2063118 A CA  
 1992-2063118 19920316; EP 509382 A3 EP 1992-106046 19920408  
 ; US 5362412 A US 1991-686643 19910417; EP 509382 B1 EP  
 1992-106046 19920408; DE 69227479 E DE 1992-627479 19920408  
 , EP 1992-106046 19920408; ES 2122974 T3 EP 1992-106046  
 19920408

FDT DE 69227479 E Based on EP 509382; ES 2122974 T3 Based on EP 509382

PRAI US 1991-686643 19910417

REP No-SR.Pub; DE 3739610; EP 356972; EP 356974; EP 411436; EP 476257; US  
 3753913; US 3929874; US 3936448; US 3970653; US 4827014

IC ICM C11D003-39; C11D003-395

ICS C11D007-54

AB EP 509382 A UPAB: 19940803

A process comprising a detergent compsn. having a bleaching agent and a biodegradable cpd. of formula (I) X-CH<sub>2</sub>-CH-Y-M-R (I), where M = NR<sub>1</sub>, or S; X = SO<sub>3</sub>H, or COOH; Y = H, SO<sub>3</sub>H or COOH; R, R<sub>1</sub> = H, CH(Z)CH<sub>2</sub>(Z<sub>1</sub>), CH(Z)CH(XZ<sub>1</sub>)(Z<sub>2</sub>), or CH<sub>2</sub>COOH; and Z, Z<sub>1</sub>, Z<sub>2</sub> = H, OH, SO<sub>3</sub>H, or COOH radical; or Na, K, ammonium or substd. ammonium salt.

X and Y = COOH or Na, K or ammonium salt; Z, Z<sub>1</sub> and Z<sub>2</sub> = H or COOH radical or Na, K, ammonium or substd. ammonium salt. The bleaching agent is H<sub>2</sub>O<sub>2</sub> and derivs. or active organic or inorganic chlorine cpd.. The biodegradable cpd. is incorporated into the detergent compsn. in amount of 0.01-10 weight% based on total weight of detergent compsn. The biodegradable cpd. is beta-alanine-N,N-diacetic acid, aspartic acid-N,N-diacetic acid; **iminodisuccinic acid**; aspartic acid-N-monoacetic acid; cysteic acid-N,N-diacetic acid; carboxymethylmercaptosuccinic acid; or K, Na or Ammonium salt.

USE/ADVANTAGE - The **stabilisers** can be used in detergent formulations together with other prior art constituents e.g. complexing agents, co-builders, surfactants etc. in which the general properties can be improved in respect of sequestration, incrustation inhibition, grayness inhibition, primary washing and bleaching actions. It is ecologically safe. contains no phosphorus and is easily biodegradable be

Dwg.0/0

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: D11-B12; E10-A09B8; E10-B02D8; E10-B02E; E10-B03B;  
 E10-C02F; E10-C04D2

ABEQ EP 509382 A UPAB: 19940103

A process comprising a detergent compsn. having a bleaching agent and a biodegradable cpd. of formula (I) X-CH<sub>2</sub>-CH-Y-M-R (I), where M = NR<sub>1</sub>, or S; X = SO<sub>3</sub>H, or COOH; Y = H, SO<sub>3</sub>H or COOH; R, R<sub>1</sub> = H, CH(Z)CH<sub>2</sub>(Z<sub>1</sub>), CH(Z)CH(XZ<sub>1</sub>)(Z<sub>2</sub>), or CH<sub>2</sub>COOH; and Z, Z<sub>1</sub>, Z<sub>2</sub> = H, OH, SO<sub>3</sub>H, or COOH radical; or Na, K, ammonium or substd. ammonium salt.

X and Y = COOH or Na, K or ammonium salt; Z, Z<sub>1</sub> and Z<sub>2</sub> = H or COOH radical or Na, K, ammonium or substd. ammonium salt. The bleaching agent is H<sub>2</sub>O<sub>2</sub> and derivs. or active organic or inorganic chlorine cpd.. The biodegradable cpd. is incorporated into the detergent compsn. in amt. of 0.01-10 wt.% based on total wt. of detergent compsn. The biodegradable cpd. is beta-alanine-N,N-diacetic acid, aspartic acid-N,N-diacetic acid;

**iminodisuccinic acid**; aspartic acid-N-monoacetic acid; cysteic acid-N,N-diacetic acid; carboxymethylmercaptosuccinic acid; or K, Na or Ammonium salt.

USE/ADVANTAGE - The **stabilisers** can be used in detergent formulations together with other prior art constituents e.g. complexing agents, co-builders, surfactants etc. in which the general properties can be improved in respect of sequestration, incrustation inhibition, grayness inhibition, primary washing and bleaching actions. It is ecologically safe. contains no phosphorus and is easily biodegradable be

ABEQ US 5362412 A UPAB: 19941223

Bleaching agents are **stabilised** in a detergent compsn. for textiles and fabrics, by incorporating a biodegradable cpd. X-CH<sub>2</sub>-CHY-M-R into the compsn. Cleaching agent comprises H<sub>2</sub>O<sub>2</sub> (deriv., peroxyhydrate, or (in)organic active chlorine cpds. In the formulae, M is NR' or S; X is SO<sub>3</sub>H or COOH; Y is H, SO<sub>3</sub>M or COOH; R and R' are each H, CH<sub>2</sub>CH<sub>2</sub>(Z'), CH<sub>2</sub>CH(Z')(Z''), or CH<sub>2</sub>COOH; and Z, Z' and Z'' are each H, OH, SO<sub>3</sub>H or COOH.

ADVANTAGE - Bleaching agent is ecologically safe and contains no phosphorus.

Dwg.0/0

L64 ANSWER 23 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1979-57759B [31] WPIX

TI **Imino-di succinic acid** complexing agent preparation - by reacting aspartic. acid with maleic or bromo-succinic acid using aqueous alkali, then acid and methanol.

DC E17

PA (NIKO-I) NIKOLSKII V M

CYC 1

PI SU 629208 A 19780911 (197931)\*

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PRAI SU 1976-2343931 19760407

IC C07C101-20

AB SU 629208 A UPAB: 19930901

**Imino-disuccinic acid** is of formula (I) and it is described as new. It is useful as a complexing agent, forming **stable** complexes with ions of rare and transition metals. The complexes of cpd. (I) with copper, nickel, cobalt and other metals have bright colour so that it can be used in colorimetric analysis. This cpd. is prepared by reacting bromosuccinic acid and aspartic acid solution or maleic acid and aspartic acid solution in weakly alkaline medium and treating prod. with mineral acid (pref. hydrobromic acid) and extracting with aqueous methanol.

FS CPI

FA AB

MC CPI: E10-B02D

L64 ANSWER 24 OF 24 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1973-07333U [06] WPIX

TI **Imino disuccinic acid** and prepn - from maleic acid and ammonia.

DC B05 E16

PA (PFIZ) PFIZER INC

CYC 1

PI GB 1306331 A (197306)\*

PRAI US 1970-95886 19701207

IC C07C101-00

AB GB 1306331 A UPAB: 19930831

Used as an antibiotic potentiating agent, lubricant and oil **stabilising** agent. Intermediate for medicinals, polymers, plasticisers and curing agents. This compound or its derivatives are useful in dyeing and electroplating processes and for boiler cleaning.

This process uses shorter reaction times and gives better yields than previous methods.

1.5-2.5 (pref. 1.6-2.2) moles ammonia per mole of maleic acid are used. The source of ammonia is either anhydrous ammonia or pref. concentrate ammonium hydroxide. Total water content of the reaction mixture is 5-40% (pref. 5-20%). Reaction temperature is 60-155 degrees C (pref. 85-110 degrees

C

for concentrate NH<sub>4</sub>OH and 140-155 degrees C for anhydrous NH<sub>3</sub>). The crude reaction product may be treated with excess HCl to liberate free **iminodisuccinic acid** or with NaOH to liberate the sodium salt.

FS CPI

FA AB

MC CPI: B10-B02B; B12-A01; B12-C09; E10-B02B

=&gt; d his

(FILE 'HOME' ENTERED AT 13:09:58 ON 16 MAR 2005)  
DEL HIS

FILE 'REGISTRY' ENTERED AT 13:10:43 ON 16 MAR 2005

L1 1 S 7408-20-0  
L2 5 S C8H11NO8/MF AND ASPARTIC ACID AND DICARBOXYETHYL  
L3 5 S L1,L2  
SEL RN  
L4 35 S E1-E5/CRN

FILE 'HCAPLUS' ENTERED AT 13:11:39 ON 16 MAR 2005

L5 204 S L1 OR L4  
L6 14 S (NA4 OR TETRASODIUM OR TETRA SODIUM) () (IMINODISUCCINATE OR IM  
L7 7 S DICARBOXYETHYL (2W) ASPARTIC ACID  
L8 178 S (IMINODISUCCINIC OR IMINO() (DISUCCINIC OR DI SUCCINIC) OR IMI  
L9 235 S L5-L8  
L10 183 S L9 AND (PD<=20010901 OR PRD<=20010901 OR AD<=20010901)  
L11 26 S L10 AND (COSMETIC? OR PHARMACEUT? OR PHARMACOL?)/SC,SX,CW,BI  
E COSMETICS/CT  
L12 15 S L10 AND E3-E61  
E E3+ALL  
L13 15 S L10 AND E3+OLD,NT,PFT,RT  
E E30+ALL  
L14 11 S L10 AND E3+NT  
E E16+ALL  
L15 0 S L10 AND E3  
E E7+ALL  
L16 0 S L10 AND E3,E4  
E E7+ALL  
L17 0 S L10 AND E2+NT  
L18 0 S L10 AND E9+NT  
E SKIN/CT  
L19 10 S L10 AND E3-E97  
E E3+ALL  
L20 15 S L10 AND E6+OLD,NT,PFT,RT  
E E36+ALL  
L21 10 S L10 AND E5+OLD,NT,PFT,RT  
L22 26 S L11-L21  
L23 4 S L22 AND (STABIL? OR INSTABIL? OR STABL? OR UNSTABL?)  
E STABILITY/CT  
E E3+ALL  
L24 2 S L10 AND E2+NT  
L25 11 S L10 AND E2+PFT,RT  
E E39+ALL  
L26 6 S L10 AND E2+NT  
E E22+ALL  
E E38+ALL

L27 0 S L10 AND E2  
L28 4 S L24-L26 AND L22  
L29 4 S L23,L28  
L30 31 S L22-L28 NOT L29  
L31 9 S L30 NOT L22  
L32 3 S (L1 OR L4) (L)USES+NT/RL AND L31  
L33 2 S (L1 OR L4) (L)USES+NT/RL AND L29  
L34 24 S (L1 OR L4) (L)USES+NT/RL AND L30  
L35 28 S L29,L32,L33,L34  
L36 7 S L30-L34 NOT L35  
L37 11 S L10 AND (KROPKE R? OR KROEPKE R? OR NIELSEN J? OR GOPPEL A? O  
L38 14 S L10 AND BEIERSDOR?/PA,CS  
L39 14 S L37,L38  
L40 14 S L39 AND L35,L36  
L41 28 S L35,L40  
SEL HIT RN

FILE 'REGISTRY' ENTERED AT 13:29:51 ON 16 MAR 2005

L42 2 S E1-E2

FILE 'REGISTRY' ENTERED AT 13:30:15 ON 16 MAR 2005

FILE 'HCAPLUS' ENTERED AT 13:30:27 ON 16 MAR 2005

FILE 'WPIX' ENTERED AT 13:31:21 ON 16 MAR 2005

L43 119 S L6/BIX OR L7/BIX OR L8/BIX OR RAOLDA/DCN  
L44 158 S (IMINODISUCCINIC OR IMINODISUCCINATE OR IMINO() (DISUCCINIC OR  
L45 163 S L43,L44  
L46 56 S L45 AND (STABIL? OR INSTABIL? OR STABL? OR UNSTABL?)/BIX  
L47 70 S L45 AND PY<=2001  
L48 118 S L45 AND PRY<=2001  
L49 112 S L45 AND AY<=2001  
L50 118 S L47-L49  
L51 35 S L46 AND L50  
L52 4 S (B12-M06 OR C12-M06 OR A08-A? OR D08-B11 OR D11-B12 OR A08-S0  
L53 36 S L51,L52  
L54 20 S L50 AND (R315 OR R316 OR R317 OR R318 OR Q62?)/M0,M1,M2,M3,M4  
L55 45 S L53,L54  
L56 18 S L55 AND A61K007/IPC  
L57 2 S L55 AND A61P017/IPC  
L58 16 S L55 AND (Q262 OR Q263 OR P94?)/M0,M1,M2,M3,M4,M5,M6  
L59 9 S L55 AND (A12-V01 OR A12-V04? OR B14-R? OR C14-R? OR B12-L? OR  
L60 19 S L55 AND D08-B?/MC  
L61 21 S L56-L60  
L62 14 S L61 AND (LIGHT? OR ?COLOR? OR ?COLOUR?)/BIX  
L63 7 S L61 NOT L62

FILE 'WPIX' ENTERED AT 14:01:25 ON 16 MAR 2005

L64 24 S L55 NOT L61-L63

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